LETTSOMIAN LECTURES

ON

SYPHILIS,

DELIVERED BEFORE

THE MEDICAL SOCIETY OF LONDON,

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BY

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NOTICE TO THE READER.

These Lectures were delivered before the Medical Society of London, on the 17th, 24th, and 31st of March 1858, and subsequently inserted in The Lancet. As they contain suggestions and facts which may prove useful, I have ventured to give them the present more permanent form.

Since the appearance of the Lectures in The Lancet, I have been favoured with communications from medical men, containing cases bearing upon questions discussed in the Lectures. I beg here to thank my correspondents, and to assure them that I shall make use of the valuable cases they have forwarded, in my work on Venereal Diseases which I am at present completing.

17, *Brook-street, Grosvenor-square,*
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Lettsomian Lectures

ON SYPHILIS.

LECTURE I.

ON THE UNICITY OR DUALITY OF THE VIRUS OF SYPHILIS.

Importance of the study of syphilis.—Specialism.—Diversity of opinions on syphilis.—The origin of the disease.—Syphilis in modern times.—Existence of a syphilitic virus.—Ricord's unicity.—Proposed duality.—Sketches of the doctrines of Hunter, Abernethy, Carmichael, and Wallace, as bearing on the plurality of the virus.—Bassereau's duality.—Ricord's opinion on a duality of poisons.—Present state of the question.

Mr. President and Gentlemen,—I beg your permission to offer a few observations on some points of interest bearing upon the pathology and treatment of the syphilitic disease; and, as considerations respecting this malady have not yet been brought forward from this chair, I shall have the advantage of novelty as regards the subject.

It will hardly seem strange that the syphilitic disease should be the subject of a conference on surgery; for surgeons now-a-days, when coping with syphilis, are called upon to do a little more than to promote the healing of sores, and to gouge away carious bone. They are, in fact, expected to study the essence of the malady, trace it from its origin, examine its mode of propagation, its varied forms and aspects; observe its

progress and the influence of remedies upon its manifestations, distinguish it from other diseases, watch over relapses, and devise the most efficacious and least dangerous therapeutical measures for the alleviation of the complaint.

To do all this, it is indispensable that the inquirer be a surgeon in the fullest acceptation of the word; for the only way of mastering any surgical disease is to descend from the general knowledge of all medical and surgical affections to the particular malady on which especial attention is bestowed. General principles, and the close study of pathological laws, will allow the observer to move with judgment and ease in the circle which he has traced for himself; being ever ready to apply his information and manual skill to improvements and sound practice in the particular branch to which he is confining himself. Such a surgeon need not be afraid of being considered a *specialist*, particularly if he succeed in avoiding some of the quicksands of specialism. Amongst these is the propensity of clothing many unkindred affections in the special garb; and of not paying sufficient respect to the opinion of men who, laying no pretension to specialism, are nevertheless entitled by their knowledge and experience to judge for themselves.

I suspect that we all may usefully bestow a portion of our time on the study of syphilis. Amongst the reasons for holding this opinion I may give the two following: the universa manner in which the disease is spread amongst the community, and the variety of methods employed by competent practitioners in combating the malady.

Before the audience I have the honour of addressing, it would be superfluous to dwell on the disastrous influence this fell disease has exercised upon mankind for the last three centuries; how it has poisoned the very springs of life, fearfully visiting both the innocent and the guilty; how aggravated and loathsome it was rendered by illiberal measures and imperfect treatment; how rapidly it destroys some; how obstinately it fastens for a considerable number of years upon others;

and how terribly, even in modern times, it sometimes breaks out and defies all control.

All these unfortunate circumstances are well known; nor are my hearers less aware of the diversities of methods employed in the treatment of the disease, all these methods being based upon deep conviction and candidly avowed theoretical views. Amongst ourselves, at this moment, there may be some who dread secondary symptoms as much after gonorrhœa as chancre, and act in consequence; some may look upon every chancre, as Hunter did, as capable of exciting constitutional syphilis; some may suppose that the poison, after contagion, is immediately taken up into the organism, and that the primary sore is a consequence of general contamination; some may reject, as far as transmissibility is concerned, the distinction between primary and secondary symptoms; some may think mercury a beneficial agent, others a mischievous drug; some may believe that constitutional syphilis attacks a man but once in his life, others that the infection may recur several times.

So much difference of opinion and so much uncertainty overhang hardly any other disease; I need, therefore, not apologize for endeavouring to throw a faint glimpse of light on some points of this very intricate subject.

And now that we are fairly launched, I would fain comply with the wish expressed by Dr. Headland, my immediate predecessor in this chair. My colleague thought I might, perhaps, venture to offer a sketch of the origin of the disease; but such an attempt would merely lead you over often-trodden ground, without the benefit of arriving at a satisfactory conclusion. All I would ask permission to say on the subject is this: It is perfectly certain that previous to the general spread of the disease in 1493–95, no ancient or mediæval writer had given a description of the complaint, as seen and depicted by Joseph Grundbeck, Benedictus, and Leonicenus, who wrote in 1496–97, these authors being the first who published an account of the malady. Such is not the case with small-pox, the essential

fevers, hydrophobia, and other complaints, which are mentioned in the remotest records. We are, therefore, led to believe, that at the end of the fifteenth century the morbus pustularum, as syphilis was then called, appeared for the first time; and we are inclined to reject the ancient origin supported by some writers. Shall we give credit to the American story so eloquently and learnedly defended by Astruc? I fear not. Had the companions of Columbus brought the disease with them, they would have propagated the complaint, not at the siege of Naples, but in Portugal, where they landed. Was the disease generated by filth amongst the Jews and Moors, driven from Spain into Italy, where they encamped in the vicinity of Rome, and were decimated by the Marannic* fever, as maintained by Sanchez? Were the Yaws imported from Africa into Italy, where they became the origin of syphilis, as has been supposed by Swediaur? None of these statements are sufficiently supported by historical coincidences and documents. There is, however, one way of raising a corner of the thick veil which obscures the subject—namely, by taking into consideration the appearance of glanders amongst horses at the very siege of Naples so frequently cited. Now it was not known at the period alluded to, that this latter disease was communicable from the horse to man; and it has since been suspected that some of the loose female characters already labouring under simple ulceration, and hovering around armies, might have been infected by an individual suffering from glanders, or having about him some infectious secretion originating from a diseased horse. A mixture of the poison of glanders with the unhealthy and decomposing secretions of dissolute females may have given rise to the dreadful malady which has for centuries undermined the health of generation after generation. Proof there is none; but a tolerable share of probability.

I may not, on the present occasion, follow the ravages of the

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* These unfortunate people were driven from Spain upon their refusal to embrace the Christian faith, and were stigmatized by the term *Marranes* (pigs).

disease through the length and breadth of the world, trace its effects in different climates, describe its decrease and occasional exacerbations, compare it with the Sibbens of Scotland, the Yaws of the West Indies, and the Black Disease of Canada; but I shall just stop to inquire what aspect syphilis presents in this country, in our own refined state of society.

We now meet in hospital and private practice with all the symptoms of syphilis which have been described by the writers of the sixteenth century; nay, we are more complete than our forefathers, as may be learned by the works of Brassavolus, Fallopius, Fracastorius, and Fernelius; for it is only by degrees, and by successive authors, that loss of hair, ulcers of the tonsils, affections of the bones and of the testes, were mentioned. These manifestations of syphilis either did not appear at once, or their relation with the syphilitic poison was only gradually discovered. Surgeons now-a-days, however, see before them a considerable number of chancres, of which a rather large proportion, especially in the labouring classes, become phagedænic. We frequently observe gangrene of the prepuce and glans, and spreading buboes; we have to cope with destruction of the soft palate, and large intractable secondary or tertiary ulcers; we are grieved to see, but too often, the vomer and hard palate attacked; and we meet with carious skulls, which now, as of yore, lead the sufferer to the grave. The picture is not overdrawn, and I am sorry to say that in the space of fifteen years, I have individually seen a very large proportion of fearful pustular eruptions, extensive tubercular ulcerations, destruction of the penis by gangrene, phagedænic ulceration of the greater portion of the abdomen or the back; and I have observed some of our fair delinquents, once adorned by freshness and youth, turned into objects of disgust and commiseration. Let us, therefore, not relent in our contest with this leviathan destroyer.

I need hardly mention that nomenclature is a matter of some importance, both in scientific investigations and in practice. From a desire, then, of being clearly understood, I shall com-

prise, under the term syphilis, (a word we owe to Fracastorius's poetic efforts, and the derivation of which is not settled,) the primary, successive, and constitutional symptoms which are generally included when syphilis is mentioned. But I must say, though I am, perhaps, forestalling a little, that there will eventually be advantage in restricting the term to such symptoms as result from the contamination of the organism at large. We all know that a man may have had a chancre and a suppurating bubo, and remain for the rest of his life perfectly free from any taint whatever. Such an individual should not be said to have suffered from *syphilis;* his frame is not infected, he has simply had a venereal ulceration, followed by a glandular complication. The words *chancre* and *syphilis* might, then, advantageously be reserved for the more serious complaint, and it would at once be plain that syphilis is to be classed with other blood diseases, as cancer and scrofula.

The necessity for such a distinction will become evident when we come to consider the question of unity or duality of the syphilitic virus, the principal object of the inquiry which we are now instituting. This inquiry may, however, appear idle to some practitioners, as we have it stated in certain books that the poison of syphilis may be generated spontaneously. It has also been maintained that frequent promiscuous intercourse, coupled with uncleanly habits, may cause the development of syphilitic ulcerations. If notions of this kind were to gain ground, investigations respecting the intimate nature of the virus, its unicity, duality, or plurality, might well be given up, for spontaneous generation, problematical as it is in natural science, is completely incompatible with the conception we form of a virus or morbid poison. In establishing a comparison between the modes in which small-pox and syphilis (two very frequently-observed morbid poisons) may be artificially propagated, we shall rest analogically satisfied that the purulent matter at the point of the syphilitic lancet contains a virus as well as the matter carried by the variolous blade. Analogy will aid us just as efficiently if we look at glanders

and rabies, and we cannot consistently admit a virus for these diseases, and refuse it to syphilis. Nay, we concede a special virus for scarlet fever, influenza, rubeola, and typhus, although we are aware that it must be volatile, and unamenable to the senses by any vehicle; so we may, *à fortiori*, look upon the syphilitic virus as having a *bonâ fide* existence.

Nor does the analogy between syphilis and other contagious diseases rest here, for it is extremely probable that the organism is insusceptible of two syphilitic infections. A patient who has suffered from generalized syphilis is just as unlikely to see an indurated chancre take root upon any part of his body as an individual who has had small-pox to see a variolous pustule luxuriate by inoculation upon his frame. It is not strictly known, however, *how long* the immunity lasts respecting either of these diseases, or respecting the protecting effect of the vaccine virus, but I would venture to say, that the syphilitic influence is, from some facts observed, *more likely* to endure than that of either variola or vaccinia. This is extremely probable, because patients have been known to present constitutional symptoms of syphilis many years after the primary infection, a long lapse of time having intervened, during which the morbid disposition lay dormant. We have no such test regarding the two diseases just named; on the contrary, we do know that the vaccine virus will take a second time after the interval of a certain number of years. I wish to be understood as not denying *in toto* the possibility of a second infection on an individual who has passed through the phases of constitutional syphilis; but it may be affirmed that no reliable cases of such infection are on record; nor have experiments satisfactorily shown that the pus taken from a hard chancre will produce a similar sore upon an individual whose organism had previously been tainted by syphilis.

This question is intimately connected with another very important one—viz., whether the disease *ever completely* leaves the organism which has once been infected. Ricord is inclined to think that something is always left, and that the disease is

never entirely eradicated; but neither he nor other syphilologists are quite certain on that head; and no surer proof could be obtained that syphilis can be completely eradicated than the production of a patient who, after having had symptoms of generalized syphilis, and undergone an appropriate treatment, were some years afterwards to contract a hard chancre. This circumstance would incontestably show that his blood had been perfectly freed from the virus, he having again become susceptible of its influence. I need hardly say that *soft chancres* will very easily spring up on such individuals, but the hard does not.

A very interesting illustration of insusceptibility is frequently afforded in practice. I often see patients who present a hard chancre behind the corona. This kind of sore secretes but very little pus in ordinary circumstances; but uncleanly habits and negligence excite irritation and inflammation, and pus is then pretty largely secreted. The groove behind the corona becomes inoculated, wreaths of chancres spring up, but none take on induration.

But let us return to the *virus*, that alkaloid, as it were, which has not as yet been isolated from its vehicle. It is plain that we know it merely from its effects; and that its essential nature is still a matter of conjecture. Chemistry and the microscope have done their best to clear the mystery, but to no purpose. I have myself made a few efforts in that direction, kindly assisted by my friend, Mr. Jabez Hogg. We possess very delicate drawings of the microscopical appearances of various purulent secretions; but we have not hitherto obtained the reward of our industry. I am not, however, inclined to relax; and hope I may succeed a little better than some writers—such as Didier, who, in 1710, contended that the virus was composed of little worms; or, as Donné, who more recently laid great stress on the vibrio-lincola found in the pus; or as M. Castano, who maintained, in 1855, that the virus consists of a parasitical fungus.

The essence of the poison is, to this day, unknown; but the

last few years have, nevertheless, worked a complete revolution respecting this same virus; and it is in France that this revolution, like many others, has occurred. It consists in dethroning the monarchial government of one virus, and forcing it to share its power with another morbid poison. The unicity of the virus is attacked as despotic; and the sceptre is henceforth to be divided.

It is well known that Ricord was led by his experiments to admit but one syphilitic virus; and it is by no means surprising that he should have formed such an opinion. During his numberless inoculations, he observed that, of all the syphilitic ulcerations, the primary sore only was susceptible of artificial propagation. He saw this sore, whether hard or soft, equally reproduced, or almost so; and he concluded that as they both possessed this same property, they were the result of the same poison. But how did he explain that one of these sores was never followed by constitutional symptoms, and the other always? He explained it by the different constitutions upon which the selfsame virus was planted; and said, with his usual imagery, that the seed was ever the same, but that the ground wherein it developed presented differences. I can vouch, however, for his having his misgivings all the time. He more than once told me by the bedside, many years ago, in his hospital: "You may rest assured that some day distinct origins will be found for the infecting and non-infecting chancres." Nay, we find the following words, which sound almost prophetic, in the "Letters on Syphilis," p. 359:—"In computing the cases of syphilization, published in Italy and in France, I find that it was always matter from soft chancres that was used, and that the only time that an inoculation was practised at Paris with pus from a hard chancre, the healthy individual, who was the subject of it, presented the development of a hard chancre and of constitutional syphilis. If these results were constantly obtained, we must admit that there are differences in the symptoms which have reference not only to the peculiarities of the individual upon whom the pus is

implanted, but also to differences in the pus itself." And it was eventually one of his own pupils who worked out the idea, and now bids fair to establish his duality in the place of his teacher's unicity. But before I attempt to sketch by what steps the new doctrine was brought to light, it will be useful to inquire whether, before Ricord's time, doctrines analogous or partially so to those now promulgated had not existed. By this retrospective glance we shall be able to ascertain the real value of the new tenets which have been proposed.

The foreshadowing of the notions which were to lead to a belief in a plurality of syphilitic poisons was thrown by Hunter. It is well known that this great physiologist had arrived at the conclusion that gonorrhœa and chancre arose from the same poison; and he was considerably strengthened in this opinion by an experiment he made upon himself, and which was extremely likely to give support to the views he had adopted. He could not, however, deny that there was such a thing as *simple* gonorrhœa; nor could he help noticing that ulcerations were observed on the parts of generation, which, though resembling the chancre which was eventually to bear his own name, did not present all the characters of sores depending on actual syphilis. Hence we hear him say, in the chapter on the affections resembling the lues venerea: "Other diseases shall not only resemble the venereal in appearance, but in the mode of contamination, proving themselves to be poisons by affecting the part in contact, and from them producing immediate consequences similar to buboes; also remote consequences, similar to the lues venerea." The last few words contain a statement which has been found unsupported by facts; and it is almost strange that, deeply engaged as Hunter was in the consideration of these questions, he did not catch a glimpse of the soft chancre and its inability to infect the economy; the more so as he had so beautifully seized upon the characters of the bubo by absorption, which generally accompanies it. But such oversight is easily explained by the fact that mercury was given for every chancre; so that the use of this metal always had the

merit, when no constitutional symptoms appeared, as generally happens with soft chancre, of having prevented the development of systemic syphilis. The distinction between the soft and hard chancre, as subsequently made by Ricord, could, therefore not be expected of Hunter. The latter, had, however, a kind of presentiment that such a distinction did exist; but he was not inclined to work out the problem himself, and merely says, "As the diseases in question (those resembling the lues venerea) are various, and not to be reduced to any symptom or order that I am acquainted with, I shall content myself with selecting the cases, and thereby put it in the power of others to judge for themselves, if they should not be inclined to adopt the conclusions I have drawn from them."—(American edition, p. 492.) This was certainly not a distinct declaration of plurality of virus—far from it, but it was equivalent to saying: I have observed on the parts of generation appearances which resemble those occasioned by syphilis, but some characters are wanting to make the resemblance complete. How shall we class this kind of false syphilis?

The hint was not lost on Mr. Abernethy, who diligently collected facts bearing on this important question. It is a pity, however, that no attempt was made by the author to classify these facts, and by the assistance of analogy to introduce something like order into the mass of data which public and private practice brought before him. Our author was, besides, considerably cramped by the belief that the action of mercury is quite sufficient to prove the venereal nature (thereby was meant the syphilitic nature) of every symptom. This belief must have necessarily obscured the otherwise keen perceptive powers of Abernethy; hence we are not surprised at remarking a little confusion in the book called "Surgical Observations on Diseases resembling Syphilis," 1810; for we perceive that secondary symptoms are attributed to primary affections which are not venereal—that is to say, not syphilitic. We must naturally suppose that the diagnosis was not quite correct, either as regarded the primary or

secondary manifestations. Nor is Abernethy at ease when he comes to think of this *pseudo* syphilis; for he says at the very beginning of the book alluded to:—"It cannot, I think, be denied, on due consideration of the subject, that many sores are induced on the genitals by sexual intercourse which are not the effect of the venereal poison, and that many of these infect the constitution, and produce secondary symptoms resembling those of that disorder. It may be asked, however, if these diseases be not venereal, what are they?" One would almost feel inclined to try and answer the question, were it not that the author erroneously introduces secondary symptoms, which merely tend to perplex.

Abernethy was, however, on the eve of disentangling himself from one of the trammels which cramped Hunter, and therefore had more advantage than his predecessor. Abernethy had, namely, a foreboding that mercury was, perhaps, not so infallible a touchstone as was commonly imagined; for we hear him say (p. 28):—"I shall prosecute the subject by relating some unequivocal cases of diseases strikingly resembling syphilis, but which, however, were disorders of a different nature, provided it be admitted that syphilis does not spontaneously get well without the aid of medicine." Nay, as we advance in the book, we find in the author a desire to erase constitutional symptoms from the diseases resembling syphilis; for he remarks, (p. 59,) in speaking of sores: "It is from their effects upon the constitution alone that we can judge whether they were syphilitic or not." Thus we have Mr. Abernethy actually paving the way for the doctrine of duality which has so lately been proposed, and which we shall presently examine. It is to be regretted that the author contented himself with noting down and describing the various phenomena which came before him in his practice, without trying right earnestly to find a string to lead him through the labyrinth. Indeed, he seems to have been fairly puzzled and worried by the varieties of symptoms that were brought under his notice; so much so, indeed, that he closes the work with the following words:—

"Such is the result of the observations I have made on the treatment of these most vexatious diseases—diseases which must, I believe, perplex all surgeons, whatever opinions they may entertain respecting them, and whatever conduct they may pursue with a view to their cure."—p. 167.

Four years after the publication of Mr. Abernethy's "Surgical Observations," Mr. Carmichael offered to the world his "Essay on the Venereal Diseases which have been confounded with Syphilis," 1814. This book contrasts most strongly with Abernethy's. The latter author relates what he sees, and remains perplexed; the former observes with a keen glance, seizes upon analogies and coincidences, and builds up a system. Abernethy is overcome by the multiplicity of puzzling facts, and falls under their weight; Carmichael victoriously classifies his data, and creates a doctrine. These opposite courses illustrate once more what happens in paths foreign to science—viz., that two men placed in the same circumstances will use them according to the peculiar bias of their minds. At the very beginning of the essay, we perceive the lawgiver, the man who, with a powerful hand dispels confusion and obscurity, and boldly introduces symmetry and rule where most surgeons were lost in chaos. "The yaws and sivvens," says Mr. Carmichael, p. 8, "have their appropriate laws and stated appearances, from which there is no departure. Why, therefore, should we suppose that peculiarity of constitution, or any adventitious circumstances, should prevent the syphilitic poison from producing its accustomed and characteristic effects? It is rational to think that its laws are as invariable as those of small-pox, cow-pox, or any other morbid poison with which we are acquainted."

These laws Mr. Carmichael considered he had discovered, and he thought that there existed a constant correspondence between certain eruptions and peculiar sores, so that from the appearance of the latter the former might be foretold. The scheme which the Irish surgeon proposed is worth while quoting. He expresses himself in the fifth chapter of his work

as follows: "The circumstance which most strongly forces itself upon our attention is the constant association of a distinct and peculiar train of constitutional ailments, with corresponding primary symptoms, demonstrating that the regularity which marks the character of all morbid poisons, also has a place in venereal diseases."

Mr. Carmichael then describes five classes of constitutional eruptions: the first comprises true syphilis; the three next, venereal affections resembling syphilis and depending each on a distinct poison; and the fifth includes eruptions which are quite unconnected with sexual intercourse and arise spontaneously. I shall but just remind you, very briefly, of the principal features of these classes.

"1. The scaly eruption which appears under the form of lepra and psoriasis, and terminates in ulceration, is alone produced by the syphilitic primary ulcer, characterized by its slow progress, and its indurated edge and base: and we find that both local and constitutional symptoms yield with almost invariable certainty and celerity to the action of mercury."

"2. The papular eruption which terminates in exfoliation of the cuticle may either be occasioned by the smooth superficial ulcer, without induration or ulcerated edges, or by a purulent discharge from the surface of the glans and prepuce; or, thirdly, by a gonorrhœa virulenta; and we have found that these different species of the same disease are alike capable of a spontaneous cure, or of being removed by external astringent applications; and that the constitutional disease they produce is, like the primary, also capable of a spontaneous cure, which is promoted by antimony and decoctions of the woods."

"3. The pustular eruption which terminates in ulcers, covered by crusts, is either occasioned by the phagedænic or sloughing (primary) ulcers. These distinctive venereal complaints, in their primary stage, are best treated by such means as subdue inflammation and symptomatic fever, and by anodyne medicines, such as cicuta and opium. In their secondary stages, the decoctions of the woods, antimony, and mercurial

salts, in alterative doses, are the means most to be depended upon; but change of air, and such measures as may tend to strengthen the constitution, are also of unquestionable moment."

"4. The tubercular eruption which terminates in deep, irregular ulcers, has been traced, *in one instance only*, to a primary sore, which, from the manner it undermines the skin, has been named the burrowing ulcer. But until other cases concur to demonstrate this connection, it would be premature to conclude that the one always occasions the other. The treatment is the same for the phagedænic ulcer."

"5. The diseases likely to be confounded with syphilis, which arise spontaneously from a disordered state of the constitution, frequently assume the form of the tubercular eruption..... But after ulceration, the sores do not continue so extensive, jagged, and obstinate, and particularly under the means recommended, as those of a venereal origin. Treatment: nitrous acid, the woods, and alterative doses of mercury."

Now this classification rests upon the close observation of patients in a Lock Hospital, and emanates from a clear-headed man, who was determined to trust to facts only. Eighty-eight cases are, in the book before mentioned, related in full; and when we see how readily the imperfections of the system can be shown, we feel deeply impressed with the weakness which marks the proudest works of man.

And yet with Mr. Carmichael we make a considerable stride. It is true that he completely neglected the valuable symptoms offered by lymphatic and glandular complications; that lepra and psoriasis hardly ever suppurate; that the supposed connexion of the papular eruption with the smooth ulcer, inflammation of the glans and prepuce, or gonorrhœa, will not stand the test of experience; that the pustular eruption is frequently unconnected with phagedænic or sloughing ulcers, and often follows the sore with the hard edge and base; that the latter sore is every day seen to give rise to papules or erythema, which latter eruption Mr. Carmichael does not mention at all; and lastly that the cases of spontaneous eruptions are extremely

unsatisfactory; but we have, nevertheless, due weight given to the indurated sore, which, very properly, alone obtains the appellation of syphilitic; and we are advised to shun mercury in phagedæna and sloughing.

Mr. Carmichael, like Linnæus, seized upon one character only for his classification, and, by attaching an exclusive importance to eruptions, arrived, like the great naturalist, at an *artificial* system. But the Irish surgeon was too good a pathologist not to see what importance other symptoms could have; hence we find him saying, p. 215: "It is only necessary to advert to the constitutional affections of *the skin*, as they are the most obvious of those symptoms which can be traced to a primary ulcer; yet all the other constitutional symptoms are nearly as capable of being discriminated and arranged, at the expense, however, of a little more attention."

It is to be regretted that the author did not engage upon this inquiry. He has, however, done much; and I am forcibly reminded, by the foregoing sketch of a system which betokens a mind imbued with the love of harmony and symmetry—I am reminded, I say, of the noble and commanding features of Mr. Carmichael, which men who, like myself, studied in the capital of Ireland at the period he was pursuing his useful career, will not easily forget. I need but allude to the melancholy manner in which Mr. Carmichael met his death, to excite your liveliest sympathy.

Without leaving the fertile Hibernian soil, we pass on to Wallace, whose work appeared some years after Mr. Carmichael's. The conception which Wallace formed of syphilis shows a tendency to return to a belief in the unicity of the virus. Being, like Abernethy, surrounded by cases presenting a considerable variety of symptoms referrible to sexual intercourse, he was at first likewise perplexed; but he did not allow himself to be carried away by the physiological school which Broussais was heading in France, and according to whom it was a mistaken notion to admit the existence of any syphilitic virus. Wallace hoped he had found the solution of the intricate

problem, by noting the more or less regular *action* of sores. The ulcer which destroyed the tissues neither too much nor too little was made *the type;* the others, degenerations from this type. We shall see, hereafter, that at the present time in France, a system somewhat analogous has been put forward by M. Clerc. But we ought, in justice, to allow Wallace, who, I am sorry to say was prevented by death from completing his labours, to say a few words for himself. Here is his analogical reasoning (p. 57):—

"The inoculation of the vaccine poison, like that of the venereal poison, produces numerous varieties of disease; yet we are in the habit of affirming that one of these varieties deserves to be considered, in preference to the others, as the regular or legitimate vaccine disease. Should not the same law hold in regard to syphilis, which is, like vaccinia, produced by a morbid poison?.....The venereal disease," the author goes on to say, "which is the original type or specific form, and of which all the other forms are viewed as degenerations, presents, when compared with these supposed degenerations, the following characters. It exhibits, in a combined and perfect state, and in a medium degree, that series of destructive and restorative actions which are exhibited by the other forms of the same disease, in an irregular manner, and without any defined proportions. From it, as from a centre, the varieties branch out on either side, gradually decreasing in severity of destructive action, until they arrive at that state of disease which consists in a morbid secretion without ulceration; and, on the other hand, gradually increase in severity, until they lapse into those forms of disease, which exhibit the most malignant ulceration or gangrene.....There is a form of venereal eruption or constitutional disease, which,.....as compared with other constitutional venereal eruptions, should be considered the legitimate form, upon the same principles that a certain form of primary disease is here considered to be the legitimate form. Thus all the degenerate forms of primary syphilis will be found referrible to two divisions; those of the first division being

characterized principally by irregularity in the processes of ulceration or destruction, and those of the second by irregularity in the process of reparation. The former division is composed of three varieties: in the first, the destructive process is in excess—phagedænic primary syphilis; in the second, the same process is deficient—superficial primary syphilis; and in the third it is wanting—catarrhal primary syphilis. The second division has three varieties; the first is characterized by excess of interstitial deposition at the base of the ulcer—indurated primary syphilis; the second, by the same excess at the circumference of the ulcer—annular primary syphilis; and the third by an excess of granulation or deposition on the surface of the diseased part—fungous primary syphilis."

Now it cannot be denied that these forms have a real existence; we have all seen them, and many of us will, perhaps, be inclined to look upon the classification as ingenious; but Wallace erroneously connects *all these forms* with secondary eruptions, (there being, however, according to him, one legitimate eruption only, as there is but one legitimate primary sore.) He is therefore led, most unfortunately, to give mercury in all, even in the catarrhal form. He falls into error respecting the hard chancre and warts, and is driven, having once attempted a classification, to multiply his sub-varieties, when treating of each of the six degenerations in particular. He gives us, in fact, an example of a practical man explaining the pathological phenomena he has seen, in a curious, but completely erroneous manner.

At length we had, in 1838, Ricord's book on inoculation, and right cleverly did this champion of the unicity of the virus defend his cause. I have already said how he was led to admit but one syphilitic poison; but he went further. He showed that this poison was a complete stranger to gonorrhœa proper; that it became weakened in the secondary manifestations; that its action on the lymphatic glands was an indication of its being likely to infect the organism or not; that it almost certainly contaminated the economy when it gave rise to an ulcer with

an indurated base; that the constitutional symptoms it excited presented a regular succession when no treatment intervened; that these symptoms might be combated with mercury in their earlier, and with iodide of potassium in their later forms; that syphilis enters the economy by means of the vehicle carrying the primary virus, and not the secondary or weak; and that the action of the disease generated by this virus is to proceed, when constitutionally established, from without inwards, even to the viscera.

These doctrines were not received without discussion either on the Continent or in this country; but they have certainly exercised a most marked influence on the treatment of venereal diseases all over the globe. Ricord's system stands now, in spite of a great many attacks, a handsome edifice, as remarkable for harmony and symmetry as for its practical applications.

Yet, as I stated before, it remained a source of embarrassment, that of two primary sores, possessing the same faculty of physiological or artificial reproduction, one, having a hard base, should almost invariably be coupled with indurated inguinal glands, and the contamination of the organism; and the other, having a soft base, should, in most cases, cause suppurating bubo, or, indeed, an inguinal chancre, and leave the organism unscathed. Could the same virus produce such widely-different effects? Ricord answered, that some constitutions resisted, and others not; though, as I had occasion to mention a few minutes ago, he *suspected* the cause might be in the virus.

One of his pupils, however, M. Bassereau, who, in 1852, published an excellent book on syphilitic eruptions, considered that differences as to constitution, mode of life, sex, age, and climate, had nothing to do with the development of constitutional syphilis or its non-appearance. From a large number of cases collected at the Paris Lock Hospital, he took one hundred who, after chancre, had suffered constitutionally; and an equal number whose chancres were not followed by secondaries, and who had had no treatment capable of warding off systemic

syphilis; and found in these two series of cases about the same proportion of lymphatic temperaments, weak frames, bad hygiene, &c. He took into particular account the fact that the same person may, at short intervals, take first a soft then a hard chancre; and also, that patients have been known to present soft chancres successively through a certain number of years, and to contract at last an infecting sore which contaminated the economy. The cause of the infecting nature of some chancres (as regards the organism at large), and the non-infecting nature of others, could, with such data, not be believed to depend on age, sex, idiosyncrasies, temperaments, constitutions, modes of living, seasons, or intercurrent affections. In order to discover this cause, he thought of confronting the person infected with the individual who had been the source of the contagion, and found that all those patients who presented chancres, followed by constitutional symptoms, had taken the disease from persons affected exactly in the same manner. He also observed, by another series of comparisons, that individuals suffering from chancres which had remained local symptoms, and had not infected the economy, had been diseased by persons with whom the chancres had also left the organism untouched.

From these facts, M. Bassereau was led to suspect that the cause sought for might lie in the virus itself. With much propriety, and the usual humility of true merit, he refrained from jumping at a conclusion, and would not at once, as the lawyers would say, make the rule absolute, but he gave the results of his investigations as very good grounds for admitting the duality of the syphilitic poison. One poison, by whichever name it may be called, producing local symptoms only; the other, for which the appellation of syphilitic might, perhaps, exclusively be retained (as I have already stated), giving rise, besides the local manifestation, to infection of the whole economy. The series of cases observed, showed that one kind of chancre was not capable of generating the other; hence the author was justified in suspecting a duality, until facts were

brought forward proving that a soft chancre can produce a hard one, and *vice versâ*.

Not content with these clinical data (which have since been wonderfully multiplied by subsequent inquirers), we find M. Bassereau seeking support in the *history* of the syphilitic disease, in spite of the scantiness of reliable records. He thinks that he has made out that we may partially believe in the ancient origin of the disease—that is to say, as regards the chancre which remains local, and does not infect the organism. The chancre which taints the frame appeared only at the epidemic of 1495, and from that period were those fearful constitutional symptoms observed which are rife up to the present moment. The soft chancre, M. Bassereau believes, is as old as the world; the hard, with its dismal train, began its reign, and that in the most ruthless way, towards the close of the fifteenth century.

But how is it that these two kinds of sores were subsequently confounded? The author holds that the earlier writers (and he is certainly very precise in his quotations), such as Marcellus Cumanus, John Vigo, Benedictus, Fracastorius, and others, knew the distinction between the old and new chancre, the one going by the name of *caries non-gallica*, the other being called *caries gallica;* some of these writers even describing the hard base of the latter, and its not being followed by bubo. But the physicians, who wrote afterwards, began to confound the two kinds, seeing that the starting point was the same; and Vella and Brassavolus are considered as having been principally instrumental in the spreading of the error. The confusion became soon so great that Fallopius considered the disease as presenting Protean forms, appearing now in the shape of a urethral discharge, now as an ulcer, now as a bubo, and now as an affection implicating the whole of the frame. In modern times, however, we find various attempts (of which I have had the honour of pointing out a few) at dispelling the confusion; and we have at last Ricord, who clearly distinguishes gonorrhœa from syphilis, points out the innocent nature of the

soft chancre; and, finally, M. Bassereau, who ascribes a different nature to the virus which generates the soft, and the virus which generates the hard chancre.

Another specialist of Paris, M. Clerc, also a pupil of Ricord, is likewise a supporter of duality; but instead of holding that the soft chancre had existed from the beginning of the world, and that the hard was first observed at the time of the epidemic, he considers that both kinds are posterior to that epidemic, and that the soft is a *degeneration* of the hard. (We are here reminded of Wallace.) M. Clerc thinks, in fact, that the *chancroid* (as he calls the soft chancre) is the result of the implantation of the pus of hard chancre upon a previously syphilitic individual.

But a fatal objection to this view is, that this *chancroid*, when communicated from an already syphilitic individual to an untainted person, will develop upon the latter in the shape, not of a *soft*, but of a *hard* chancre, and infect the economy.

Struck by the logical manner in which M. Bassereau had conducted his investigations, and by the value of his clinical facts, several specialists of France undertook to control the new doctrine by the same system of confrontation which its author had adopted. The latter had succeeded seventy-five times, out of seventy-eight confrontations, in showing that constitutional syphilis had existed both in the infecting person and the individual infected. M. Clerc of Paris was just as fortunate in seven cases. M. Diday, a distinguished specialist, M. Rodet, and M. Rollet, all successively surgeons of the Lock Hospital of Lyons (these gentlemen are elected by competition, and remain only six years in office), have instituted similar confrontations, and published numerous cases all corroborating the doctrine of duality.

Ricord could not, of course, remain idle in this general stir made about a very important point of his system; and he began to institute inquiries of the same kind. (I should here state that the control exercised in Paris over a certain class of women, the obligation imposed upon them of repairing to a

given hospital when diseased, and the large size of both the male and the female Lock institutions, render confrontations practicable in Paris. You at once see that we have no facilities of the kind in London, and that such confrontations can be obtained in this country but on a very limited scale.) Ricord had, in these investigations, a very great advantage; he secured, as assistant, an extremely active and intelligent interne, or house-surgeon, M. Fournier, who has lately published a book on the subject, and who carried on the examinations with the utmost zeal and perseverance. It cannot, however, be denied that such confrontations must be made with the utmost caution, and that the sources of error are numerous. Amongst the number I may mention the following: Deceit or unwillingness on the part of patients; promiscuous intercourse in a limited interval; mistakes as to whether the professed or the concealed harlot has been the source of the disease; chancres which escape the notice of patients; a soft chancre springing up on the cicatrix of an old indurated one; a soft chancre observed upon a person previously infected with lues, which chancre may implant actual syphilis on an individual who had never been diseased, &c. &c. These are certainly great obstacles in the way of obtaining reliable cases of confrontation; but we are told by Ricord that due regard has been paid to all these sources of error, and doubtful cases entirely rejected.

There is certainly a less circuitous manner of arriving at a solution; but the experiments are not justifiable. They would consist in inoculating a given number of healthy persons with pus from soft chancres, and another similar number with pus from hard chancres, already accompanied by constitutional symptoms, and watch the results. But as this is impossible, we must be content to observe the phenomena of ordinary contagion, and guard against error. The confrontations directed by Ricord, and carried out by M. Fournier, may be divided into the following groups:—

1. Transmission of simple chancre, with its original aspect, from one untainted subject to another, also previously untainted.

2. Transmission of simple chancre, with its original aspect, from an untainted subject to one already infected with syphilis.

3. Transmission of soft chancre affecting syphilitic individuals, with its original characters, and not producing constitutional symptoms upon the recipient.

4. Transmission of soft chancre affecting syphilitic individuals, in the shape of hard chancre, followed by systemic syphilis.

5. Transmission of hard chancre upon previously untainted subjects.

6. Transmission of hard chancres upon individuals already infected with syphilis in the shape of soft chancre, and presenting all the characters of the latter.

Now the cases which these groups include, and which I cannot of course quote here, are extremely curious; the patients being respectively watched, examined, and interrogated at the male and female Locks. No trouble was spared to discover the women who had been the source of contamination, and it is obvious that the amount of labour must have been very great. But, as I said before, the inquirers were greatly aided by the police regulations of the French capital. Indeed, I recollect a fact related to me by a patient at the German Hospital, Dalston, which illustrates, in a rather amusing way, the stringency of these regulations.

The man, being lately a patient at Ricord's hospital, had been closely questioned as to the source whence he had taken the complaint. He could not tell the address, and the woman was not discovered at the female Lock. Soon after leaving the hospital, and having quite recovered, he met the lady in the street, and entered into conversation with her. They walked together until they came in front of a guard-house, where he gave her in custody. She was soon examined by the surgeon appointed for the purpose, found diseased, and sent to the Lock. Information was given to M. Ricord's house-surgeon, and the case completed.

The groups to which I have just alluded, contain 102 cases, amongst which the transmission of the hard chancre occurred

59 times. In casting up the cases of confrontation from *all sources*, we find that undoubted cases, given by men of the most reliable honesty, already reach the number of 137. These refer chiefly to confrontations where an indurated chancre was transmitted, and secondary symptoms occurred in both individuals.

I have endeavoured to add a few from my own practice, both public and private; they are but few, yet nevertheless valuable. One is an example of transmission of soft chancre, where the lady accused submitted to examination, because she did not know, as often happens, that anything was the matter with her. She had on the cervix the identical kind of chancre which the patient presented on the corona. The chancres were soft in both individuals, and no general symptoms occurred in the gentleman for years afterwards. I have noted five remarkable cases where I had the advantage of seeing and treating both parties for a long time. In these confrontations there were four married couples, the wives having been infected by their husbands. There was no concealment, and I made out that the infecting chancre had, in all these cases, produced its like. The details are extremely curious, but I may not quote them here; suffice it to say, that a certain amount of similarity was noticed in the constitutional symptoms of the respective couples, and that there was childbearing, in four cases, after the full development of the disease. One of the women gave birth to a child, which has now reached the age of nineteen months without a blemish; another was confined twice, and gave birth, at the full time, and at the interval of a twelvemonth, to dead children; the third was prematurely delivered, at seven months, of a dead child; and the fourth had a miscarriage at four months.

It is plain, that if we admit the doctrine of duality, on which I have just dilated, we may do so without infringing upon the unicity of the *syphilitic* poison; because, from all we have said, it would appear that there seems to be a duality of *chancrous* poison, but that there is but one actually *syphilitic* virus capa-

ble of infecting the economy. We, therefore, find that Ricord may side with his pupil without interfering with any of the tenets he has hitherto been maintaining. He has, indeed, given in his adhesion, but in a somewhat guarded manner, and he is, perhaps, right, as certain points are not, as yet, perfectly elucidated. Amongst these, is the fact of soft chancres being rarely, or never, found in the cephalic region; about the head and face the chancres are always of the hard kind; and yet, it may fairly be supposed that the region in question may occasionally come in contact with pus derived from a soft chancre. M. Diday has attempted to explain this, by saying that soft chancre does not take on the head, just as scabies is known to shun the cephalic portion of the body. But it must finally be confessed that the evidence in favour of a duality of *chancrous* virus is overwhelming, and that it is very probable that much time will not pass before it is admitted by the whole profession. The unicity of the syphilitic virus remains, however, unshaken, and though the treatment hitherto adopted to combat the re-results of both poisons will not require any modification, the doctrine will afford considerable aid in diagnosis and prognosis, and elucidate certain points of forensic medicine.

I, therefore, have no doubt that you will heartily join me when I say that much praise is due—First, to the originator of the doctrine, and then to the inquirers who, by collecting facts, have given undoubted value to an important improvement in the pathology of syphilis.

LECTURE II.

ON SOME PECULIARITIES OF CERTAIN CONSTITUTIONAL SYMPTOMS OF SYPHILIS, AND ON THE NON-CONTAGIOUS NATURE OF THE WHOLE SERIES.

Average of the time which separates the primary symptom from the eruption.—Simplified classification.—Value of the copper-colour and the absence of pruritus.—Condylomata, vel mucous tubercles, vel muco-cutaneous papules.—Secondary and tertiary syphilitic ulcers.—The non-contagious nature of the secondary and tertiary groups of symptoms.

Mr. President and Gentlemen,—When I had last the honour of addressing you, we were occupied with a doctrinal question of some importance—viz., whether we should admit a unity or duality of the syphilitic poison. The result of our inquiry was, that the doctrine of duality bids fair to become firmly established, but that its adoption does not upset any of the tenets which have been upheld by Ricord. We may, in fact, believe that the poison of soft chancre is different from that of the indurated chancre, (which latter is the precursor of systemic syphilis;) and we thus have a duality, not of the *syphilitic*, but of the *chancrous* poison—one harmless, the other harmful; one confining its effects to the locality where it springs up, the other producing a modification of the tendencies of the organism; one inoculating the nearest lymphatic vessels or glands, the other charging them with a peculiar morbid exudation; one suppurating freely, the other scantily; one presenting a soft, the other a hard base; one very liable to phagedæna, the other not.

This duality teaches us nothing new, but the investigations which were instituted to test the truth of the doctrine have confirmed the great fact, that these two kinds of chancres are propagated with their peculiar characters, and that there is no

crossing of species. We also have proofs that both the soft and hard chancres are transmitted to an individual, previously infected with systemic syphilis, in the shape of the *simple or soft chancre;* but that the character of the virus of the hard chancre is so decidedly peculiar, that when this previously syphilitic person transmits the pus of his *soft* chancre to an *untainted* subject, the latter will be affected with *hard* chancre and its sequelæ. In fact, the hard chancre can no longer develop upon an already tainted person; but the latter may become, if he exposes himself to the contagion of hard chancre, a kind of receptacle of the actual syphilitic virus, which he may convey to previously healthy individuals, and infect them with syphilis. Cases in support have been published, especially by M. Robert, of Marseilles.

This transplantation has been observed upon animals on which experiments were made. Pus of hard chancre was forced, by repeated irritation and scraping, to lodge and flourish under the epidermis of a monkey. The latter presented, however, no systemic syphilis, because animals are insusceptible of the constitutional affection; but the pus retained its properties, and being inoculated upon Dr. Welz, a German physician, gave rise to hard chancre, followed by the symptoms of systemic syphilis.

Not only, however, do questions of doctrine present some difficulties in this disease, but perplexities continue when we come to observe the material manifestations of this sad complaint. I have, therefore, thought we might usefully occupy a few moments this evening in considering, 1st, the present state of our knowledge respecting eruptions; 2nd, the mechanism connected with the production of the constitutional syphilitic ulcer; and, 3rd, the non-transmissibility of the symptoms of systemic syphilis.

The first manifestations which we generally remark, when the organism is infected, are eruptions on the skin and mucous membrane subsequently to a variable degree of feverish symptoms, and an uncertain lapse of time after the

appearance of the indurated sore. Now, these eruptions are extremely valuable signs of the infection of the system; and all observers who have given attention to this disease have felt the desire of ascertaining the mean of the time which separates the evolution of the primary symptom from the eruption; and have, moreover, tried to classify the manifestations of the skin, not only as regards their material form, but likewise respecting the cutaneous consequences of the eruptions. Before treating these two subjects, let us say a word of the fever or *initiatory* phenomena.

You may safely take it as granted, as far as my own observation goes, that these have hardly any existence. It is true that ancient and modern authors have described symptoms ushering in the eruptions nearly akin to those which precede the exanthemata; but when we look at actual practice, we find that, in the vast majority of cases, the eruption appears without any warning, and that patients are taken quite unawares; nay, it has often happened to me to direct their attention to cutaneous symptoms with the existence of which they were quite unacquainted. Frequently, whilst exerting my powers of diagnosis upon a chancre presenting induration, I felt a doubt, and asked to examine the groins; and, in doing so, I discovered upon the abdomen either a rash or a crop of papules, which the patient had not seen, and which, of course, left no longer any hesitation as to diagnosis. Struck by these facts, I made it a rule, for a long period, to ask each individual affected with eruptions, what had been his sensations previously to their appearing, and almost invariably was I told that no particular uneasiness had been felt.

This is decidedly the rule; but I have met with exceptions. One patient, of mature age, who suffered from gangrene about the glans by excess of inflammation, and had been much weakened by this process, felt languid and listless a few days before the appearance of papules on the skin. Two other patients, one with a rash, and the other with papules, were attacked, a few days before the eruption, with very severe pain between

the angle of the scapula and the spine. One of them suffered so much that I ordered mustard poultices to the spot; and the other's respiration was so seriously interfered with by the pain that I was misled, and ordered leeches, fearing pleurisy. These cases are the only ones of the kind I can recollect; and I am now firmly of opinion that a great modification has, as to initiatory fever, taken place since the time of Hunter. I do not even meet with the flying pains in the bones so much dwelt upon by Ricord.

The rule also holds good in those cases where the eruption is at once pustular. Such an eruption is certainly rare as a first systemic manifestation; but I have had two cases under my care which presented this peculiarity. One patient became, soon after the appearance of the primary sore, so covered with pustules, that he looked like a living illustration of the cutaneous syphilis of the great epidemic; the other jumped, without any intervening symptoms, from chancre to rupia, but neither seemed to have had a trace of initiatory fever. True, they both became subsequently very weak and low, and I was certainly at one time afraid about the issue; but the debility was caused by the severity of the eruption, and might be compared to cancerous cachexia, which, if I do not mistake, is the result more of the exhausting effects of suppuration and irritation than of the blood disease itself. But it is especially in those cases where the tonsils become suddenly ulcerated that the absence of flying pains and initiatory fever is striking. I have seen many patients who became aware of the existence of such ulcers but by pain on swallowing. A few papules may, in some cases, be detected here and there; but instances are not unfrequent where no cutaneous manifestations accompany the ulceration of the tonsil, and where such ulceration occurs suddenly without the least general disturbance. The knowledge of these circumstances may aid us in our diagnosis when consulted respecting doubtful cases; for a line is at once drawn between certain syphilitic eruptions and the exanthemata.

Now, as to the question of the time which separates the

primary sore from the eruption, it must be confessed that much labour has been bestowed on it, as it was hoped that we might perhaps arrive at such fixed rules as have been discovered for the exanthemata. Success has not been complete; but we know enough to form a pretty accurate prognosis.

The tables which have been offered by some authors are not quite satisfactory, because they make no distinction of sex, and because the influence of treatment is not sufficiently taken into account. As to the sex, I have found that the general symptoms appear more rapidly in women than in men, so that statistics of this kind should be drawn up for each sex in particular; and as to the effect of the treatment, it would be important to specify how long the mercurial course had been persevered in.

It is but seldom that we have opportunities of studying the natural history of this disease,—viz., when no treatment whatever has intervened; yet this is the only foundation upon which we should attempt to answer the question at issue. I find, however, in my male cases nine individuals who presented eruptions, and had not undergone any treatment whatsoever. In three cases of papules, the eruption in one appeared *seven weeks* after the primary symptom; in the other, the interval had been *six weeks;* and in the last, *eight weeks.* Two cases of roseola or efflorescence appeared, one, *twenty-four days* after the occurrence of the chancre, and the other, *one month.* (With the latter case, however, mercurial pills had been taken for a week when the roseola broke out; and the patient, of course, did not fail to accuse the pills of having brought the eruption upon him.) Psoriasis appeared in two subjects at the distance of *four* and *eight weeks.* So that we may, regardless of the *kind* of eruption, reckon a mean of six weeks where no treatment has been resorted to.

As to the muco-cutaneous papules of women, *alias* condylomata, they will frequently appear a *fortnight* or *three weeks* after the primary sore. But we can seldom accurately appreciate the period; as, with women, an opportunity of seeing the

primary symptom is rarely offered. Neither loose women, nor wives who have been infected by their husbands, seek medical relief for ulcers of the indurated kind; because the sores are mostly concealed in the vagina, and do not give rise to troublesome buboes. Yet, recently I had under my care a girl presenting a large indurated chancre on the right labium, with a wreath of muco-cutaneous papules around the anus. Age of the chancre, six weeks; of the papules, three. No treatment.

I do not purpose at present entering upon the influence of therapeutical measures; but I shall just state that mercury, when it does not prevent the evolution of cutaneous symptoms, certainly retards their appearance. I find in my cases much difference as to the length of time mercury may keep off the eruptions, and I notice in some cases that the usual succession of symptoms was inverted.

I shall not detain you with any observations respecting the acute or chronic nature of the eruptions. Strictly speaking, and considering merely the time during which the cutaneous manifestations may remain visible, they are all chronic, except erythema, which is found to fade very rapidly. If we take into account the whole period in which an individual may remain subject to the disease, the words "acute" and "chronic" are no longer applicable; nor can we say that eruptions are early or late, because erythema, which generally appears early, may break out again when a pustular eruption, which is mostly seen late, has faded away. For practical purposes, we may take the following succession as the most frequently observed: erythema, papules, vesicles, pustules. The two former are observed in the greater number of cases.

Having now disposed of the question of time, and confining our attention completely to eruptions on the skin, we come to consider whether it is useful to classify them. On the first blush of the matter, such an endeavour seems useless; for we have but one remedy to combat them all, or nearly all, and therefore it seems more rational to find simply the means of ascertaining whether an eruption is syphilitic or not. If

syphilitic, the remedy is at hand; if not, the inquiry becomes easier by the exclusion of syphilis. But such short work is not sufficient; we are obliged to study forms, because the syphilitic manifestations of the skin present themselves with characters closely resembling the simple eruptions. The generally-adopted names of these force themselves upon us, and we are constrained to submit to a *comparative* classification. Yet we may strive to avoid the confusion which arises from a multiplicity of orders, genera, species, and varieties.

In practice, I hold that it is sufficient to deal with orders; and when the syphilitic character has been clearly ascertained, we may safely neglect the hard words which dermatologists have been pleased to coin. I would propose to limit these orders to a very few, which the drawings before you beautifully illustrate: Erythema, Papules, Vesicles, Pustules. These four seem to me quite sufficient. Let us see the syphilitic value of some genera. What is papular erythema but an eruption differing but little from erythema proper? What is psoriasis syphilitica but confluent scaly papules more or less flattened, or a scaly permanent erythema? Is the difference between herpes and eczema so great as to prevent us from simply calling them a vesicular syphilitic eruption? What is the tubercular eruption so often mentioned, but large papules developed in the cutis vera? Tubercles, however, differ from papules in one respect. The former are very liable to ulcerate, the latter hardly ever run into ulceration. And as to bullæ, we must not let them trouble us at all. Few of us have seen them in their original early form, except in tainted infants. I know I have not, but I have often noticed the so-called rupia (which is said to owe its existence to a bulla) taking its rise from a large pustule. Let us quietly simplify the study of syphilitic eruptions, and be content with our four orders; they will suffice for the purposes of diagnosis and treatment. Nay, if we be seized with the enthusiasm for simplification, we may reduce the four classes to *one*, marked with a few stages. I

beg you to note that all the eruptions we are considering are driven on the skin by the same poison; it is the same pox which in one patient excites erythema, and pustules in another, or which calls forth these two eruptions in the same patient at different periods. The skin is the seat of the morbid process, and the papillæ and cutaneous glands will be influenced according to the state of health of the patient, his age, his susceptibility, and the treatment he has undergone. Erythema gradually passes into papules (we need not affix a name to each little gradation, and herewith clog our progress); papules may become slightly irritated, and secrete serum; we have then vesicles, and the irritation may be considerable enough to cause the formation of pus, which latter is then the result of *bonâ fide* inflammation, and then we have to deal with pustules. If one class only can thus be shown to be sufficient, four will *à fortiori* be abundance.

From the preceding considerations, it will become evident that the common term of scaly diseases is not practically correct, for erythema and papules (the former being a simple congestion of the papillæ, the latter a regular enlargement and hypertrophy of the papillary masses) disturb the secretion of the epidermis, and will cause it to be cast off in scales, the latter being more or less thick and more or less coloured with serum. In the latter case, the scales are mostly derived from vesicles, and obtain the appellation of impetiginous. The term scaly diseases is too vague, we might, however, put erythema and papules into one great division, called the *deciduous*, as the epidermis is frequently cast off; and vesicles and pustules into another great division, called the *secreting*.

But here we are struck by a great fact. Some cutaneous affections are noticed to have a tendency to destroy epidermis, rete mucosum, cutis vera, and all the beautiful secreting apparatus contained in the latter, and, in fact, of running into ulceration; others have no such tendency; and it just happens that erythema and papules belong to the latter category, and vesicles, pustules, and tubercles to the former. We can there-

fore, with some propriety, use as a guide for diagnosis and treatment the following table:—

First Division.

Non-ulcerative, or deciduous.	}	Erythema and papules.

Second Division.

Ulcerative, or secreting.	}	Vesicles, pustules, and tubercles.

I must confess my partiality for the practical lucidity which is afforded by the division into ulcerative and non-ulcerative eruptions, because ulceration denotes a considerable activity in the poison, and a want of resistance in the patient; hence, when we see the possibility of the formation of ulcers by the appearance of vesicles, pustules, or tubercles, we have made a discovery which is of paramount importance in the treatment. We are then bound to assail the poison with some energy, and to husband the strength of the patient. I may, perhaps, add, that the manner in which syphilitic ulcers are mentioned is, in general, very unsatisfactory, for sufficient attention is not paid to the manner in which the ulcer has arisen. But more of that anon.

Having said thus much respecting classification, let us now consider the diagnostic signs by which we can ascertain whether an eruption is syphilitic or not. Two characters of the syphilitic nature of cutaneous manifestations have been frequently dwelt upon—viz., the copper-colour and the absence of pruritus. I purposely leave out the *circular form*, which is sometimes mentioned, because the value of any characteristic shape is entirely restricted to ulcers, which latter we shall consider presently. Of the colour and absence of pruritus, I venture to say that the first has hardly any importance as an aid in diagnosis. It is true that papules and vesicles, when they begin to dry and die off, assume a light-brown tint, especially around the edges, but this happens so late, that, had we but this sign to rely upon, we might be forced to practise expectant

medicine. As to erythema, the dark colour has still less importance, for most rashes will in a short time disappear entirely, and leave no trace of their passage, save now and then a few scales. When pustules do not run into ulcers, and the dried pus, which forms a more or less thick crust, falls off, a blotch or stain is left, which certainly presents a light-brown shade; but this, again, occurs very late. If the base of pustules goes on secreting, whilst the upper stratum is drying, the secretion takes places at the expense of the tissues on which the pustule is seated, these tissues are gradually destroyed, and *bonâ fide* ulceration takes place under the crust. But the whole of this process goes on without presenting any of the characteristic colour around the pustule. We have no assistance, except from some peculiarities of the crusts, which are said to be always black, but which I have found to vary considerably in colour. It would therefore appear that, as far as diagnosis is concerned, we must not rely much on the tint of the eruption, because the light-brown coloration is a kind of epiphenomenon, and diagnosis does not tolerate after-wit.

But if we must, in some degree, give up this character, we find another, and a very trusty one, in the absence of pruritus or heat. This is very peculiar, and especially valuable when we fear confusion between syphilitic erythema and the exanthems, or between specific vesicular eruptions and itch. This absence of pruritus is, however, to be found in a few of the simple *non-specific* eruptions; but it so thoroughly pervades all the cutaneous manifestations of syphilis, that it affords considerable assistance.

I would especially call attention to the erythema which sometimes is observed in persons who are taking copaiba: here the pruritus is entirely wanting, and so puzzling are these cases sometimes, that the history of patients must be thoroughly investigated to set the possibility of a syphilitic erythema at rest. I possess about half a dozen cases of the kind: one was shown to me, the other day, by my friend Dr. Lichtenberg, at the German Hospital, where the whole body

was covered with an efflorescence approaching the papular eruption; and certainly it required some care to decide upon its nature, which was, however, found non-specific. Another eruption occurred only a few days ago upon a private patient of mine, affected with gonorrhœa, and who had been taking Jozeau's saccharated capsules *only four days*. On passing the hand along the skin, the epidermis is always felt slightly raised, which circumstance is not observed in specific erythema.

No doubt we meet here and there with an exception, and find a little pruritus in *syphilitic* erythema; but then, we have the history of the case, and the lymphatic stigmata which the poison leaves upon the economy. These stigmata are, as you are aware, the indolent enlargement of the inguinal and occipital glands, and sometimes of a few others about the arms and neck. This congested state of the glands is especially valuable with females; for with them, all trace of primaries may long have been destroyed, whilst the groins tell the tale, and disclose to the attentive observer the nature of the eruption. With men, some induration may be left on the seat of the primary sore; the inguinal glands are generally distinct, and the occipital glands very often enlarged; the efforts at diagnosis, therefore, are more frequently successful. Yet, on the female side, there is, as I stated a few minutes ago, an early evolution of certain hypertrophied papules on the labia and around the anus, which at once stamps the case. These papules, which I have proposed to call muco-cutaneous, as they spring from a surface which has a muco-cutaneous character, are well worth a few remarks (now that we have done considering the value of the copper colour and pruritus), as some misconceptions respecting them are still prevalent amongst us.

Ricord calls them mucous or flat tubercles, and this term is no doubt correct; but I cannot help thinking that much confusion arises from using the word "tubercle" too frequently. There is the *tubercular* eruption (which I have blended with the papular); there are the deep *tubercles* (a tertiary symptom); and there are, independently of syphilis, the *tubercles*

which are found in the lungs and other organs of consumptive patients. Hence I may conclude that some obscurity will be avoided by calling the pathological appearances we are now considering "*large muco-cutaneous papules.*"

That these large papules should long have been looked upon as primary manifestations, and should even now be held as such by experienced men, can hardly be wondered at: for they are sometimes the only syphilitic symptoms presented by the patient; they may be the first morbid signs observed by the sufferers; they spring up in those regions which are the most exposed to danger in the usual mechanism of contamination; and they secrete purulent matter which might be looked upon as infectious. But, in spite of these characters, the papules in question may easily be shown to be wanting in the properties of primary sores, and to belong to the *systemic* symptoms of the disease.

Hardly any surprise need be felt at the error which has prevailed respecting these so-called condylomata; for we all know that a similar confusion has existed in other departments of pathology. Scarlatina was at one time confounded with measles; bronchitis with pneumonia; iritis with corneitis; pericarditis with endocarditis; typhoid fever with typhus; and hysteria with epilepsy. Observation has led to the collection of clinical facts; and these prove that these hypertrophied papules are not conveyed by actual sexual intercourse, nor by close and habitual contact, whilst chancres are known to produce their like by sexual congress. From such facts, the tendency arose of concluding that the papules, in spite of the circumstances to which I just alluded, did not present the properties of primary symptoms. This was very simple reasoning. Then came experimentation, which proved that the primary sore could again and again be propagated by artificial inoculation upon the individual affected; whilst muco-cutanous papules could not be multiplied in the same manner. We are thus driven to admit that these papules have none of the characters peculiar to primary sores, and that they must be classed amongst

the secondary symptoms of syphilis. To carry conviction into your minds, I will endeavour to sift the matter a little farther.

And first, one source of fallacy is, as I said before, that these large papules are sometimes the only syphilitic symptoms found on the skin. And why? Because the eruption, in the shape of erythema or papules, has already withered, and has not been noticed by the patient. Or the eruption may be so slight as to escape attention altogether. And even were the eruption completely wanting, it should be remembered that it may be concentrated in the vulvar, perineal, and anal regions, owing to the heat, moisture, and friction, which, in some degree, attract it to those localities. Allow me to mention a case of some analogical value.

I have now under my care, at the Royal Free Hospital, a girl suffering from a confluent papular eruption, with thick scales. She has had several relapses during the last three years, and has presented partial aphonia all the time. I ordered, a few days ago, blisters on the sides of the neck, to try derivation. On the blistered surface, confluent papules subsequently arose, exactly similar to those already existing on other portions of the body. This occurred, very probably, on account of the local excitement. But traces of a general eruption are seldom wanting; we need but carefully examine the patients, and we almost always find ordinary papules scattered here and there; at least, I have treated many cases which clearly illustrate this fact.

A second source of error is, that the muco-cutaneous papules are not unfrequently the first morbid signs observed by the sufferers. They are the first noticed, because they prove very inconvenient as regards sexual intercourse; and because they interfere with the carrying on of an unfortunate pursuit. Scattered papules, ulceration of the tonsils, loss of hair, enlarged inguinal glands are disregarded; these blemishes may be concealed, pain is combated, and the victim struggles with the disease, in order to avoid struggling with want. But the morbid influence gradually becomes more and more manifest in the

regions which are, in more than one manner, irritated and excited; isolated large papules arise on the labia, they soon coalesce, intemperance and uncleanliness do their best, inflammation, œdema, and a fœtid secretion put a stop to all attempts at concealment, and the unhappy outcast is constrained to seek refuge in the wards of an hospital. Nay, in writing down the histories of such cases from the lips of the patients, I have ascertained that the poor creatures hold out very long, and that intercourse does actually take place while the organs engaged are in the pathological condition which I have attempted to describe.

Again, it has been urged, in favour of the primary nature of these symptoms, that they appear almost exclusively on the parts of generation. This is, however, only partially true, for I have seen them in the axillæ and the upper part of the thighs; but granting the fact as regards women, we may at once ask why men, who certainly are in many instances instrumental in the propagation of the disease, do not present such papules on the regions immediately concerned in coïtu? If the papules were primary and easily-communicable symptoms, we ought to see them in both sexes in the same localities. I need hardly say that they are rarely observed with men. I possess several cases, however, where these papules had developed on the scrotum and verge of the anus in men suffering from systemic syphilis, and presenting other cutaneous symptoms. These were almost always individuals of fair and delicate skin.

Now, as to the matter which these papules sometimes secrete, and which might be suspected to be infectious, I have to remind you that, in ordinary circumstances, the papules are almost dry; that when irritated they discharge a semi-mucous and very offensive fluid; and, lastly, that they secrete pus when inflamed. I have tried, by inoculation, upon the patients themselves, the two kinds of fluid, and always with negative results. We may therefore rest satisfied that the papules are not contagious in the manner of chancre, as this latter kind of sore may be again and again reproduced on the same person.

And, finally, if it be taken into account that, in almost all the cases in which the muco-cutaneous papules are seen upon the regions before mentioned, there is about the body some other symptom distinctly proving the infected state of the woman's system, we are driven to consider those papules as *bonâ fide* secondary, and we frame our treatment accordingly.*

Before offering a word on the treatment of these manifestations, I would just say that some surgeons have been led to judge very harshly of male patients who present large muco-cutaneous papules about the anus. Such patients have been simply accused of lending themselves to unnatural practices, the papules being looked upon as the results of direct contagion. From the remarks I have made on the pathology of these papules, it is plain that this view is unsound, and extremely unfair to the patients.

If I may, then, assume that muco-cutaneous papules are symptoms depending on the infected state of the economy, the treatment will include the administration of mercury. As to local applications, I need not mention the lotions with a weakened solution of hypochlorite of soda, followed by calomel dusting, as recommended by Ricord, as I have frequently dwelt on this mode of treatment before. I have now accumulated a considerable number of cases which prove that this application (preceded by poultices if there be much inflammation and irritation), free cauterization with nitrate of silver, and the internal use of mercury, are most efficacious.

As these papules are very apt to vegetate, I have been obliged, in several instances, to use potassa fusa, or the knife. But I can hardly agree with those who practise excision as a rule, whether the papules are fungating or not: you might as well snip off all the papules which spring up in other parts of the

* It should not be forgotten that chancres have been known to fungate when secondary symptoms broke out before the chancres were cicatrized. The latter are thus transformed into muco-cutaneous papules. This circumstance, which is well ascertained, should be taken into account whenever the nature of the papules is discussed.

body. Still, I cannot object to such caustics as are likely to promote the rapid drying and casting off of these growths, which latter should at all times be carefully distinguished from simple *unsyphilitic* vegetations. Such is an ointment which I saw Dr. Weber use at the German Hospital. I prescribed it in the case of a man whose scrotum and upper part of the thighs were thickly studded with muco-cutaneous papules. After a few applications, the latter became dry and horny, fell off, and left a surface denuded of cutis, which healed very rapidly. The ointment is composed of two drachms of calomel, the same quantity of sulphate or oxyde of zinc, and one ounce of axunge. Dr. Weber uses the oxide, and Dr. Lichtenberg the sulphate. Both compounds answer well, and I have reason to be satisfied with the trials I have since made of the ointment at the Royal Free Hospital.

But here I must express my regret that the treatment of these manifestations, as also of syphilitic symptoms in general, should often, independently of the practitioner, be so lamentably incomplete. Take these very muco-cutaneous papules. As soon as, by local applications and the use of mercury, they have disappeared; as soon as the patient (I principally allude to hospital practice) is invigorated by rest and good diet, she insists upon leaving the institution; and scarcely has she departed, than all idea of further treatment is abandoned. It is also very difficult to make private patients understand that the mercurial course should be persevered in long after the cutaneous symptoms have disappeared. The consequence of this state of things is, that relapses are the rule, and that practice thereby becomes, in several respects, very unsatisfactory. This is extremely unfortunate, as females have to be admitted again and again, and must submit to great suffering, and to the administration of more mercury than would have been necessary for a regular course.

It is astonishing how frequently the muco-cutaneous papules of which I have spoken, are met with in the venereal wards of public institutions. I may say, as far as the Royal Free Hospital

is concerned, that very few female patients are admitted into the ward set apart for venereal complaints who do not present a crop of them. This holds good of my colleagues' patients as well as of my own. A peculiarity of these muco-cutaneous papules which should be noticed is, that they never go over into ulceration, except they are subjected to an extraordinary amount of irritation. Other forms of eruption are, on the contrary, as shown in the table, very liable to undergo ulceration; and we so often meet with ulcers in the syphilitic disease, that we may well spend a few minutes in the consideration of these symptoms.

It cannot be denied that some confusion exists as to the due appreciation of the nature of the syphilitic ulcer, for we are told by authors that such ulcers may be of the secondary or tertiary kind; we are told that they may begin in various ways —viz., that they may follow vesicles, pustules, tubercles, gummy tumours, or be connected with diseased periosteum or bone. Now the question practically is: A syphilitic ulcer being given, is it possible to decide from which form of eruption it arose? or, in other words, can a secondary ulcer be easily distinguished from a tertiary solution of continuity of the same kind? The question is not one of pure pathology, but it has its practical bearing, because mercury succeeds in the one case and iodide of potassium in the other. In attempting to answer the question, I would again call your attention to the tabular arrangement which I have proposed. Ulcers may arise from the cutaneous manifestations of my second group (the secreting or ulcerative)—viz., from vesicles, pustules, and tubercles; these are all *secondary symptoms*. Ulcers may, on the other hand, follow the deep tubercle of the cutis vera or gummy tumour, or be connected with diseased periosteum or bone. These are *tertiary symptoms*. Can these two series of ulcers be distinguished from each other? I think they can; but I have learned from practical observation, that very often we derive great advantage, in a diagnostic point of view, from other symptoms of the disease, contemporaneous with the

ulcers. Let us, however, examine the appearance of the ulcers themselves, and begin with vesicles. When ulceration occur after a vesicular eruption, the solution of continuity is always very superficial, and has no tendency to destroy in depth. Secondly, pustules. The pustular eruption is likely to give rise to a very great number of ulcers of small dimensions, like sixpences, disseminated all over the body, and having no tendency to spread. The pus dries quickly, falls very soon, and leaves an ulcerated surface of little depth, with slightly-sharp margins, and a yellowish fundus. I remember a private patient of mine who had between forty and fifty of these little ulcers upon him at the same time; they appeared a few weeks after the disappearance of an erythematous eruption. A patient at the German Hospital the other day, had more than thirty of these; they heal very nicely under mercury, and leave a whitish, depressed cicatrix. The pustules will, however, sometimes form in little groups on a large patch of inflamed surface, crusts will appear on the drying of the matter, and crescents and circles will be seen. Ulcers are perceived here and there on the falling of the crusts; but, in some places, the part heals under the crust. In some habits, the pustule will form a crust which increases in size from ulceration going on beneath it; and the crust may become very large, and leave, on falling off, a very extensive, deep, and excavated ulcer. The crust either assumes a semi-spherical shape, or increases in gradually-increased layers, taking the shape of the limpet-shell. In the first case, we are told that the case is one of deep ecthyma; in the second, we hear the names of pustulo-crustaceous ulcer and rupia; but they all belong very probably to the same pustular class; and it is but very rare, in practice, to see the ulcers in their earliest stage, except in cases which present successive crops.

Now, as to tubercles, their relation to papules is so clear that their course is sometimes perfectly similar to that of papules—viz., gradual diminution of size, slight desquamation, and final disappearance by absorption. But they differ from papules in-

asmuch as they may be followed by ulceration. Here again, however, we see the family likeness of most eruptions on the skin, as the tubercle, before becoming an ulcer, must inflame and secrete pus; the little abscess breaks, and the ulcer which follows has considerable resemblance with an ulcer resulting from a pustule. The difference lies in the subsequent phenomena presented by the tubercular ulcers, which, as is well known, may destroy either in surface or depth to a very alarming extent.

In this short manner, and neglecting all the minor forms, and useless species and varieties, we have done with the ulcer belonging, as to origin, to the secondary group. The mucous membranes suffer mostly at the same time, including the iris; but I desire to confine attention to the ulcers on the skin.

We now pass on to the ulcers following the deep tubercle, or gummy tumour. Here we have, if we look at the type, the fac simile of a boil, which, on discharging its core, leaves an ulcer which spreads both in depth and surface. Very sad destruction of soft tissues will sometimes occur with these. But here, again, we seldom see the starting point; and the man who can watch such cases *ab ovo* in two or three instances out of twenty, is fortunate. We mostly have, with this kind of ulcer, concomitant symptoms of the tertiary kind, as nodes, and severe pain in the joints or periosteum of the long bones, which symptoms will be of some assistance in diagnosis. Now and then I have felt the hard edge of the tubercle around the ulcer; but the plastic matter is sometimes destroyed, and we know not whether a pustule, a common or deep tubercle, has been the starting point. It is no use indulging in descriptions which may be more or less founded upon other descriptions previously offered; but we must cope with actual cases, try our powers of diagnosis, and candidly confess our deficiencies.

I particularly remember the case of a woman infected by her husband, who rapidly passed through the whole series of secondary symptoms, and came under my care for an ulcer by

the side of the tibia. It was exquisitely painful, and spread to the size of an ordinary saucer. I had not seen the initiatory period, and not quite satisfied as to the exact nature of the ulcer, I gave mercury, and obtained no results. I then judged that we had entered the tertiary period, the more so as the tibia was very painful, a circumstance which I had first attributed to the existence of the ulcer in the vicinity of the bone. I gave iodide of potassium, and had the satisfaction to see the ulcer heal rapidly, forming, as usual, a cicatrix in the shape of a purple star. I must not forget to state that, in consequence of grief and imperfect diet, the ulcer has recently broken out again, after having been healed up about a twelve-month.

The second kind of ulceration, belonging to the tertiary period, is that which is connected with inflammation of the periosteum and bone. Here we have an ulcer which is simply the result of an abscess; and the denuded bone soon tells the whole tale. This ulceration I have noticed to be so destructive in some of these cases, that the bones of the skull or the tibia were left quite bare. I have here very good illustrations of the disease: it is worthy of remark that some of these ulcers will be less destructive after the pus of the abscess has been discharged, and will show a tendency to cicatrization in spite of the dead bone underneath.

Now let me finally indulge in a remark or two as to the rules of practice that are to be deduced from the foregoing descriptions and attempts at an easily-understood division of ulcers. It is evident that, in the tertiary form, iodide of potassium will be our sheet anchor; and as to the local applications, they will be various, the red and white precipitate taking the formost rank. It is customary, on the other hand, when we have to deal with the ulcers falling within the secondary period, to rely upon mercury. It is well-known, however, that Ricord advises to combine the mercury and the iodide of potassium for those symptoms which he calls of "transition;" viz., the deep tubercle, which is often accompanied by pains in

the bones, and perhaps sarcocele. But I have been long impressed with a fact, which I have once before mentioned this evening,—viz., that whenever ulceration takes place in the syphilitic disease, it seems to be a proof of the activity of the poison, and of a want of resistance and proper stamina in the individual upon whom the disease has fastened. Hence I have given iodide of potassium in *all cases of syphilitic* ulceration, combining, however, mercury with that salt whenever the ulcer could be shown to belong to the secondary group, or when other symptoms decidedly secondary, as iritis, were present. I have in this manner succeeded in healing ulcers in numerous cases; but I am bound to add that relapses took place in many instances, simply because patients did not consent to go on with the medicine a sufficiently long time, or because they took it under unfavourable circumstances.

I have now trespassed, I am afraid, a very long time on your attention; yet I must beg permission to add a few words on the non-contagious nature of the symptoms of the secondary and tertiary group, which I have described. Already, in discussing muco-cutaneous papules, I have shown that these secondary symptoms were not communicable either by close and repeated contact, in sexual intercourse, or by inoculation. I have had a lady and gentleman under my care, where the secondary affection, on the male side, in the shape of confluent flat papules and vesicular eruption, all so situated as to give the best chance of infection, produced no effect upon the lady. We do not find the papules or pustules seated on the parts of generation of women, who, in that state, do not scruple to allow men to approach them, appear on the sexual organs of those men. What we see are always primary sores or discharges. What can we infer from this? Why that the pus of secondary and tertiary ulcers has lost some of the properties of the pus secreted by primary ulcers, and right lucky is this for mankind. Who has seen a *bonâ fide* small papule, a crop of pustules, of vesicles, or scaly permanent erythema, appear on the parts of generation of men, as the sole and only symptom

with which they had ever been affected? And what says inoculation? I have now practised it forty or fifty times with a view of ascertaining the effect of the pus of secondary and tertiary ulcers, and not once did I succeed in getting something or other to follow. I do not contend that a *chancre should* be the result of the inoculation; nor that a given ulcer should exactly generate its like. I only want *some manifestation or other* to show that the vehicle contains some kind of more or less weakened poison. But the results are always completely negative.

Still, I expect an opponent to say, "Do not exult in your doctrine, for your experiment has been made upon a person already contaminated; yours is not a fair trial." Granted. But how is it that I can upon this tainted individual multiply soft chancres *ad libitum?* Is there not evidently a difference between the virus contained in the pus from the primary sore and that contained in the matter secreted by a secondary pustule? "But," says another opponent, "Waller, of Prague, has succeeded in inoculating syphilis upon a healthy child, by means of secondary pus," Now this is a serious objection. But Waller's cases, which I cannot discuss here, have been shown by Ricord to be anything but satisfactory; I will, however, take as certain, that, with secondary pus, he *did* infect the child. But how did he do it? By teasing and irritating the flesh over and over again, by bathing it in the pus for a considerable time, and since the secrets of Nature are not revealed to us, we may suppose, in the presence of such a fact, and comparing with it the mass of others where ordinary inoculation was practised, that this violent mode of feeding the system with a poison may supply the latter with an energy which it does not *actually* possess. But the important matter for us to know, is whether, in ordinary inoculation, the matter is infectious; if not, we may say that, *à fortiori*, it will not be so in sexual intercourse.

Dr. Faye, a Norwegian physician, whose experiments are mentioned in several British periodicals, did me the honour of calling upon me last summer. He seemed to me an unpre-

judiced, straightforward man, and he stated, that in his own hands, pus, which had over and over again proved unavailing in ordinary inoculation, at last produced some effect by scraping, bathing, and packing up the human tissues in the matter to be tried. Indeed, I am inclined to believe that, if we were to try the pus of cancer, which is well known to be uncommunicable by ordinary contact or inoculation, and force it into the system in the manner above mentioned, we might, perhaps, obtain a new and unexpected result.

Allow me finally to state, that were even a few exceptions to be unmistakably brought forward, they would not upset the gigantic rule which has been laid down by Ricord; the main truths of his doctrine would still remain a magnificent proof of indomitable industry and a lofty harmonizing genius.

LECTURE III.

ON HEREDITARY SYPHILIS.

Age at which the infant presents symptoms of hereditary syphilis: at birth; a few weeks, a few months, or several years old. Cases.—Uninfected state of the progeny of some syphilitic parents.—Infection of the mother through the fœtus.—Cases for and against this mode of contamination.

Mr. President and Gentlemen,—I had the honour of submitting to you, in our last conference, a few remarks on syphilitic eruptions, constitutional syphilitic ulcers, and the non-contagious character of these symptoms. Whilst offering these remarks, I indulged in the attempt of simplifying the classification of cutaneous manifestations; I endeavoured to arrange syphilitic ulcers in such a manner as to facilitate diagnosis and treatment; and I finally strove to present to you, in its true light, the question of the transmissibility of the systemic manifestations of the disease. I am afraid I have fallen very short of the object I had in view; but I trust in your kind indulgence, and am persuaded that you will not refuse your support where you perceive an honest endeavour to arrive at scientific truth. I hope you will again patiently follow me through this third and last conference, in which I propose to take up some points connected with hereditary syphilis.

When we consider the whole range of the phenomena which are presented by patients suffering from syphilis, we cannot help noticing that this affection calls almost equally for the attention of the physician and the surgeon; and it is especially in hereditary syphilis that this observation holds good. Nay, the greatest number of such cases come in general under the

immediate notice of obstetricians, and of those of our brethren who are frequently called upon to attend upon lying-in women. It is, therefore, highly important that every one of us should be thoroughly conversant with all the merits of the questions connected with syphilis in general, and with infantile syphilis in particular. It is the family attendant who, as a rule, has to treat the offspring; it is he who has to decide upon the nature of the child's ailment; it is he who has to sift the history of the parents, and to undertake investigations of an extremely delicate nature.

Now as positive data are extremely valuable in the elucidation of knotty points, the necessity of publishing and collecting cases cannot be too strongly urged upon the profession at large. An accurate knowledge of the principal facts connected with hereditary syphilis will lead to more reliable means of diagnosis, and, hence, to a more successful treatment. Such an improvement is extremely desirable, because the great majority of children, born with this unfortunate germ lurking in their organism, perish at an early period of their existence.

No doubt remains now a days, in any one's mind, as to the hereditary transmission of syphilis from the parents to their offspring; it should, however, be noticed that it is only since Boerhaave and Astruc, that this transmission has been clearly made out, if we except a passage of Paracelsus, who clearly stated, in 1529, that the affection descends from parent to child. Before and after this author, until we reach Boerhaave, the writers on the subject, as has been made out with much erudition by Diday, of Lyons, considered that infants became affected either during parturition, or suckling, or by subsequent contact. But the ascertained fact of infection of the germ has given rise, in modern times, to several questions on the subject of congenital syphilis, which questions have either not been satisfactorily answered, or settled by different pathologists in various, sometimes quite opposite, manners.

The most prominent amongst these questions are—*the mechanism* of the transmission; the respective influence of the father or mother on the tainted offspring; the limitation of the time

within which, after birth, the symptoms of infantile syphilis may be expected; the action of an infected fœtus upon a healthy mother; the contagious or non-contagious character of the material symptoms presented by a diseased child, &c. From these questions I shall, with your permission, select two for consideration this evening—1st. *The limitation of time as to the appearance of the symptoms*; and 2nd. *The action of the infected fœtus upon the healthy mother.*

Now, as to the time when symptoms appear in infants bringing the syphilitic germ with them into the world, we may divide it into three periods: first, at birth; 2nd, a few weeks after birth; and, third, at epochs varying from a few weeks to a few years.

That the children of syphilitic parents are often destroyed in utero by the virus, and are expelled at different periods of gestation up to the full time, is well known; but it should be recollected that few of these still-born infants present actual, *unmistakable* syphilitic symptoms. They all bear marks of decomposition, but these marks are almost the same as are produced by intra-uterine death from other causes. Still, I must say, that I have noticed, in two cases, a peculiar lividity and complete peeling off of the epidermis, which pathological appearances I have not observed, in the same degree, in still-born children who had died from unspecific causes. But the present question is, whether children, born alive, have been known to exhibit at birth marks of the syphilitic disease. Such cases are mentioned, but they are decidedly few, and they must be looked upon as exceptional. Out of forty-six cases of hereditary syphilis which have been under my care, and in which the children were born alive, I find that in only two the infants presented at birth distinct symptoms of syphilis.

The first case refers to a little girl, who was brought to me at the German Hospital, when ten months old, in Sept., 1856. She then had two muco-cutaneous papules on the left side of the anus, the size of fourpenny-pieces, and one on the right side as large as a sixpence. She was fat, and good-looking.

History.—The mother stated that the child *was born with the papules*, that they were very small at birth, disappeared, and had come again to the present size the last two months. She had been married eleven years, and had, while pregnant with this child, what she calls piles. On examination, I found she was still affected with muco-cutaneous papules. Husband said to be well. Four children were born before the present little patient, and are in good health. I prescribed mercury with chalk and Dover's powder, and the local application of calomel ointment; the child did well, but the mother left off coming before the completion of the treatment.

The second case, illustrating syphilitic symptoms at birth, is that of a girl, five weeks old when brought to me at the German Hospital, May 9th, 1857. She presented large spots of lepra over the whole frame, the patches being already yellowish-brown, but not very scaly; discharge from both ears of a purulent, ill-smelling matter, also from the right nostril; snuffling; no vulvar discharge nor redness about labia. On the vertex, one impetiginous crust the size of a pea.

History.—The mother, a healthy-looking woman, with a round face, and marked with small-pox pits. Husband, a stonemason, whose head had been painful for some time. No other data respecting him. The mother has been married five years, and has had three children. The first child was still-born at nine months; the second child, a girl, is now two years and a half old, she was born quite healthy, but, about a week after birth, she had an eruption of the same kind as is seen upon the patient brought this day. No particular remedies were used, and she has done well.

The present little patient *was born with the eruption*, and a fortnight after birth the ears, and subsequently the right nostril, began to discharge. She is a puny child, and was still more so at birth. Has had on the vertex a bleb (pemphigus) of the size of a threepenny-piece, which gradually dried, and left the crust above-mentioned. The treatment consisted of half-grain doses of mercury and chalk combined with Dover's

powder to the child, and bark to the mother. I saw the infant a week after the first visit; there was no particular change, she looked pale, and the discharge continued. I gave one powder, morning and evening, and suspect the child died, as the mother did not return.

It will be noticed that, in the first of these two cases, the mother was infected (most probably through the father), so that the child was subjected to a kind of double syphilitic influence. But no kind of conclusion can be drawn from this case, as regards the circumstances which may favour the appearance of syphilitic symptoms at birth, as in the other case the mother was perfectly healthy. From these cases, and a few others, which have been put upon record by continental and English authors, the possibility of the presence of syphilitic manifestations at birth is proved; but tainted infants are, almost all, born with every appearance of health, and a few weeks generally elapse before the sad reality becomes manifest.

So much for the first period—viz., the phenomena presented at birth. Now, as to the few weeks which may elapse from birth to the first appearance of morbid symptoms, I shall endeavour to obtain some data from the cases which have come under my care in public and private practice. Out of the 46 cases to which I have alluded, I was able to ascertain in 28 cases at what period after birth the symptoms had appeared; and I find, irrespective of the kind of symptoms, (which, however, were all clearly made out by myself to be of a syphilitic nature,) that these symptoms were noticed a few hours after birth in two cases; a few days after birth in four cases, (in one of these four cases the mother had successively three children, who all presented, a few days after birth, undoubted syphilitic symptoms;) from ten days to three weeks after birth in five cases; and from six weeks to thirteen weeks after birth in ten cases. We have thus 21 cases in which the symptoms appeared before the child was thirteen weeks old.

The remaining seven cases are examples of the appearance of syphilitic symptoms at periods after birth ranging from *thir-*

teen months to fifteen years. The seven cases rnn thus: in the first, the symptoms appeared thirteen months after birth; in the second, fourteen months; in the third, twenty-one months; in the fourth, two years and three months; in the fifth, eight years; in the sixth, twelve years; and the seventh, fifteen years.

These latter figures are well calculated to astonish, and the intervals are so unusual, that I am induced to trouble you with a brief sketch of each of these several cases. But before doing so, I may state that of the other twenty-one cases, (in which the symptoms appeared before the children were thirteen weeks old,) there are eleven showing a lapse ranging from a few hours after birth to three weeks, and ten cases lying between six and thirteen weeks, the two groups being therefore almost equal as to numbers. So that, according to my cases, there is about an equal chance for the symptoms to appear at periods lying between a few hours and thirteen weeks after birth. Diday, of Lyons, gives, in his valuable work on "Hereditary Syphilis," data obtained from the cases of various authors, and arrives at somewhat greater results for the first month after birth than I have gathered from my own cases. Thus, he finds, out of 158 cases, 86 which presented symptoms before the first month, 45 before the second month, and 15 before the third month. In comparing our cases, we have, for about the same space of time, the following proportion:—11 : 10 :: 86 : 60. Were our tables alike, 60 should be 78; the preponderance of the first month is therefore in Diday's cases only a trifle greater than in mine.

But I would just mention, that the framing of a table upon such wording as this: "before the first, second, or third month," as M. Diday has done, is somewhat imperfect, because, when you say *before* the third month for instance, there is no knowing whether the symptoms appeared on the second or ninetieth day after birth.

I need hardly say that the practitioner should possess some positive information respecting the time likely to intervene before the appearance of the symptoms, as questions will be

asked by the parents respecting the age until which they may expect signs of the disease, and the time when they may reckon that the child is safe. Now, M. Diday considers that, after the third month, there is but little danger of seeing symptoms appearing, because, out of his 158 cases, there are only seven at four months, one at five months, one at six months, one at eight months, one at one year, and one at two years. But the danger seems, from the proportion of my own cases, to be much more lasting, as, out of twenty-eight cases, there are seven—viz., just one-fourth—ranging from thirteen months to fifteen years. Here is a short account of each of these seven cases :—

First case, thirteen months.—Henry S——, aged eighteen months, came under my notice at the German Hospital, Dec. 16th, 1857.

State on first examination.—Extreme emaciation about the limbs, pelvis, and abdomen, not so much about face. The corners of the mouth and alæ nasi are ulcerated; scrotum and inner aspect of thighs much excoriated; on the sacrum is a swelling the size of a nut just drying; superficial ulceration of the internal aspect of cheeks; cough, no appetite, diarrhœa.

History.—Mother looking healthy; father, aged thirty-six, has had boils for the last ten months (perhaps these were tertiary tubercles); his lungs are out of order. These parents have been married seven years, and have one child nearly six years old; between this child and the present patient there have been *five miscarriages*, the mother being now near another confinement. The miscarriages varied from two to four months, and the mother always enjoyed good health. The child brought for advice was weaned at five months, the mother having no longer any milk. The boy was born in excellent health, and remained so for thirteen months; he then began to fall away rather suddenly. Has had a tumour on the head, which discharged a little.

This child had been for a little while under the care of my colleague, Dr. Sutro, and remained but a short time with me, so that the ultimate results of the treatment are wanting.

Second case, fourteen months.—Mary Ann W——, aged fifteen months, dark and good looking, came under my notice at the Royal Free Hospital, Feb. 17th, 1857.

State on first examination.—Large papules interspersed with pustules all over the body, thickest on the right arm and the neck; muco-cutaneous papules around the vulva; labia covered with ulcerated confluent papules; impetiginous crusts on the hairy scalp; small and flat ones on the soles of the feet; face clean. The child is restless and seems to be in pain.

History.—The mother was healthy at the birth of the child; when it was nine months old she was infected by her husband with sores and buboes, which, she says, came to suppuration. Child remained well until fourteen months old; she was weaned at thirteen months, and four weeks afterwards broke out as above described. The nipple of the mother on the right side has been ulcerated, but the child's mouth has remained sound. The mother has since had a papular eruption, which is now seen to be fading; her throat has been very sore. The child is falling away very much. No data about the father.

Some doubts may hang over this case, as the mother was not taken ill until the child was nine months old. But I am inclined to think that the infant brought the germ into the world derived from an infected father. Were we even to believe that the mother contaminated the child at the time she had the sores and buboes, it might be asked how the infant remained well for *five months*, though exposed to a supposed immediate contagion.

The patient had mercury-with-chalk and Dover's powder, and recovered very nicely, the mother being then one month from her confinement.

Third case, twenty-one months.—I have placed this case here so as to class it, but these twenty-one months mean, that the child has now lived so many months, and has not as yet presented any symptoms of syphilis, though at the time of the birth of the infant the father and mother had for the last seventeen months suffered from the most aggravated forms of

the disease. The father had had sloughing of half the glans, eruption of large papules, and very obstinate sore-throat; whilst the mother, at the time when she became pregnant of this child, had gone through a very severe form of pustular eruption, had had ulcerated soft palate, loss of hair, and was actually suffering from a tubercular sore of the size of a dessert-plate; and yet, up to March 8th, 1858, twenty-one months after the birth of the child, not the slightest symptom had appeared. Both parents were treated by myself, the father more completely than the mother, but they both had mercury, and it remains to be seen whether the influence of that metal may be admitted to have cured the child in utero, or merely retarded the symptoms, which may one day appear.

Fourth case, two years and three months.—The mother of this little girl was thirty-eight years of age when she presented herself at the German Hospital, in January, 1854. She stated that she was well up to June, 1853, when she felt a soreness about the vulva, and soon found that the right labium was swollen into a hard tumour, upon which a sore made its appearance.

Treatment.—Poultices, and a white powder which made the teeth sore. Her child was born before she noticed these morbid symptoms, and the husband confessed to having suffered from ulcerations about the generative organs.

When the mother found that she was diseased, she weaned the child at two months, and at the period the latter was brought to the hospital, being then two years and five months old, it had had for the last two months a well-marked muco-cutaneous papule at the verge of the anus. The part improved much under mercurial treatment, but the mother had severe ulceration of the mouth, being a very obstinate smoker. I suspect that she died, as she suddenly left off coming to the hospital.

Fifth case, eight years.—Eliza H——, aged forty-three, married, and her son eight years old, out-patients at the Royal Free Hospital, Sept. 11th, 1855.—*State of the mother on admission.*—Mucous papules inside the lips and cheeks.

History.—Applied here about six months ago with the same symptoms and ulceration of the soft palate. Has been married nineteen years, and had six children before she caught any disease from her husband. She had first a thick, purulent discharge when two months pregnant with the boy she brings this day. Was treated for it, but the discharge continued to parturition. Was confined, and the child is now eight years old. Has since had another child, whose age is at present one year and ten months. This latter child, which I have not seen, had, at birth, watery bladders on its back; these dried off quickly, and nothing has appeared since but a little eruption on the scrotum. As I did not see this child, I did not place the case amongst those presenting symptoms of syphilis at birth, but it is plain that it belongs to that class of cases. The children born before the infection are quite well. The mother has had iritis and deep ulcers in the mouth for some time past.

The little patient brought this day is now eight years old, of fair complexion, healthy looking, but not strong; he is quite unblemished all over the body except the anal region, and has never had any ailment but a slight swelling behind the ear. He presents now (Sept. 11th, 1856) two muco-cutaneous papules about the verge of the anus.

Treatment.—The mother attended irregularly. She has had alum gargle, free use of caustic, and a course of blue-pill guarded by opium. On Nov. 6th the mother was well. The boy had red precipitate to the mucous papules, and two grains of mercury-with-chalk every night guarded with Dover's powder. In about four weeks he was suddenly salivated. In November the papules had quite disappeared, and he was advised to take for some time the syrup of iodide of iron.

Sixth case, twelve years.—William H——, twelve years of age, intelligent looking, apprenticed to a carver, out-patient at the Royal Free Hospital, admitted Oct. 28th, 1856.

State on admission.—Profusion of confluent minute papules, somewhat resembling fleabites, on trunk and arms. On forehead and cheeks, patches, the results of dried vesicles; a few

lichenoid spots on forehead also; no copper-colour areola. On nape of neck, similar patches somewhat more vivid in colour; a few covered with crusts. Right testicle three times the size of the left, soft and painless. Penis small; no hernia.

History.—Testicle has been large since he can remember; eruption three weeks ago. Father and mother quite well; four children besides himself, and younger, who present no eruptions. Sleeps with a boy of fourteen. Seems to have been displeased with the drawing having been taken, and did not return.

I am free to admit that the eruption might here be looked upon as a relapse; we must then suppose that the boy had had syphilitic sarcocele in utero or soon after birth, and that the testis had subsequently wasted. The case is somewhat obscure, and I do not wish to give it undue importance.

Seventh case, fifteen years.—Michael M——, out-patient at the Royal Free Hospital in April, 1855.

State on admission.—One muco-cutaneous papule on either side of the anus, respectively of the size of a sixpence and a half-crown. Testicles and penis *remarkably small.*

History (given by the father).—The papules have existed six months. One year before the father's marriage (seventeen years ago) he had a chancre, for which he was treated in the Royal Free Hospital, then in Grenville-street; ever since, he has had, at various intervals, eruptions, ulcers, iritis, &c., up to a few years ago. Wife has had several children; the eldest fifteen (the present patient), the youngest two. All the children have been more or less ailing, with the exception of the one brought this day, who has remained well until the muco-cutaneous papules appeared. Wife never had any symptoms.

Mild mercurial treatment for the boy, and astringent ointment to the papules. The patient did not return to the hospital after this first visit.

I leave you to weigh the value of these cases; some, I am aware, are not quite conclusive, but even in deducting these, we still have those of thirteen months, twenty-one months,

(which has not as yet presented any symptoms,) twenty-seven months, eight years, and fifteen years, which afford a very fair amount of probability. Nay, I am too well acquainted with the sources of error which beset cases of this kind to adhere blindly to the opinion that the appearance of the symptoms is generally to be expected a long time after birth. All I would beg to maintain is, that the time may, without the slightest doubt, be protracted in exceptional cases. We must, however, not forget that the third case is that of an infant whose parents I have myself seen and treated, and whose child is, at the present moment, twenty-one months old and perfectly well. Who knows how long the child may remain so? The most encouraging circumstance of this case is the mercurial treatment which the parents have undergone. It plainly teaches that we may, with some hope of success, propose a mercurial course to the mother when there is a fear of infection. Not only may we thus hope to prevent abortion or premature birth, but perhaps to free the offspring altogether from the syphilitic taint. And who can say that many a healthy child, now showing its ruddy and smiling face in our parks, has not been engendered by a tainted father, whose baneful influence was destroyed by the agency of mercury? Indeed, I remember being asked for my opinion by a professional brother, about eight years ago, respecting undoubted symptoms of systemic syphilis. He underwent a mercurial course, which was very successful. About a year afterwards he married, and none of his children have as yet presented any external signs of the disease.

I may mention another very interesting case of non-infection of the child. Mary Ann M——, twenty years of age, an English woman, married to a Frenchman, applied to me in August, 1855. She had with her at that time a child seventeen months old, in good health; but she was herself covered with very large pustules, especially in the face. Six months before, she had a vaginal discharge for a month, and then noticed a string of sores on the vulva; they were much inflamed, and she could neither sit nor walk. These sores took four

months to get well, and she observed at the time an eruption upon her body like small-pox. The teeth were not made sore by the medical man who attended her, and she suckled the present child all the while. The husband confessed to an ulcer under the prepuce a little time before she had the discharge; he has now muco-cutaneous papules around the anus and on the scrotum, and suffers considerable pain. Sore throat in the two cases. They both underwent a course of iodide of mercury, by which their gums were affected. The husband persevered only for three weeks; the wife for two months. She recovered perfectly, and stayed away until December 26th, 1855, when she presented a deep ulcer, the size of a sixpence, on the left side of the tongue, towards the root. The development of the sore had been very rapid, being probably a tubercular ulcer. This disappeared under the influence of the same pills and cauterization with nitrate of silver.

In January, 1856, she fell in the family-way, and miscarried at four months. A deep ulcer now formed above the right breast, and healed towards May, 1856, leaving the usual radiated star. On the 1st of September of the same year she again became pregnant, the eldest child, born before the contamination and suckled through the severest development of symptoms, being still quite well. The mother was now put upon iodide of potassium. She was confined, in February, 1857, of a healthy child, which was brought to me. I watched it for several weeks, expecting a breaking out of the disease; but such was not the case, and it has remained well up to the present time.

This is therefore a twelvemonth's suspense, and may be classed amongst the series of cases illustrating retarded symptoms; but with her, as with the child, which is now twenty-one months old, there is no knowing how long she may remain well. Here, again, we may fairly suppose that the mercury has had a beneficial influence.

Such happy results do not, however, constantly crown our efforts. I had recently a very unpleasant example of such a

failure, in a patient who was sent to me by M. Ricord. He underwent altogether three courses of mercury for relapses of secondary symptoms, and at last, as all the manifestations had disappeared, we allowed him to marry. A fortnight after marriage he showed me spots of syphilitic psoriasis, and his wife had an abortion at four months. She is again in the family way, and I have advised a course of mercury for herself.*

But do the children who escape become scrofulous? Or do they suffer from various ailments, at the bottom of which lies the modified syphilitic poison! This is an important question, which I may not treat this evening; but I would venture to express my belief that much exaggeration has been indulged in on this subject. We shall hardly ever be put in possession of sufficient data to arrive at a reliable conclusion on this subject, and it is better to remain in doubt than venture upon uncertain theories.

You perceive that I have endeavoured to bring before you this evening well-ascertained facts, and that I have avoided speculations. Pursuing the same course, I now call your attention to a mode of propagation of hereditary syphilis, which has been the subject of a very able paper by Mr. Hutchinson, of the Metropolitan Free Hospital. The author maintains, with several English and Continental authorities, that a fœtus tainted by a diseased father, and developing in the uterus of a healthy mother, may infect the latter through the placental circulation; and that such wives as lose their health after marrying men who have had systemic syphilis, do so, not because they are directly infected by the secretions of their husbands, but through the instrumentality of the fœtus, the miscarriages being sometimes so early as to be hardly noticed. Women, who do not bear children, or who do not conceive at all, would thus remain uninfluenced by the syphilitic taint of their husbands.

Now I am quite ready to agree with Mr. Hutchinson, M.

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* The mercury was not taken, and I have learned, since the delivery of this lecture, that she has had another miscarriage.

Diday, and M. Ricord, that such may be the case, particularly as this mode of contamination is perfectly compatible with the physiology of child-bearing, and because very striking and numerous cases have been collected and brought forward by the supporters of this doctrine, especially by Mr. Hutchinson. But we must not leave in the shade the cases which might disprove the doctrine; for we should thus wilfully deprive ourselves of a portion of the facts which are to aid us in our search after truth. Now I have carefully computed the forty-four cases to which I have before alluded, and I find, that in twenty-one of them, both parents were diseased before the birth of the child. These cases, therefore, do not bear upon the present question. But, out of the twenty-three remaining cases, I perceive that in thirteen, the mothers, who had given birth to syphilitic children, remained in perfect health. In the other ten cases, the mothers, after being delivered of infected children, presented symptoms of syphilis; these ten cases proving in favour of the deleterious action of the fœtus upon the mother, supposing always that the father has no direct action upon his wife, except he have actual primary symptoms upon him. This latter position I am quite ready to admit; but what becomes of the thirteen cases in which the mother's health did not suffer at all?

I am anxious to state that the reasoning with which the action of the fœtus upon the mother is supported, is extremely satisfactory; and that the blood of the fœtus, charged with effete particles, which is returned to the circulation of the mother, is calculated to favour the opinion, that she may be contaminated by her own unborn child. But if the theory, promulgated with so much talent by Mr. Hutchinson, is to be adopted by pathologists, we must find some way of explaining the thirteen cases in which the mothers remained in good health. It might, perhaps, be urged that the children in these cases were but slightly affected; or that the mothers possessed unusual powers of resistance; but we must not indulge in speculations, and I will just ask your attention for a few minutes to the following facts:—

First case.—This case has already been mentioned as exemplifying the development of hereditary syphilis in a boy, when he had reached his fifteenth year. The wife had had several children before this boy: they had all been more or less ailing; the father clearly stated that he had had syphilis before his marriage, but the mother had throughout remained well.

Second case.—Here the mother casually stated to me, April 26th, 1855, having at the time on her arm a sickly-looking child, twenty months old, that she had had eight children before. The two first were abortions at four months, the six others were born at the full period, and died a few days after birth without any eruption, and from mere debility. The mother had never been ill. No data about the father.

Third case.—The mother presented herself to me at the German Hospital, June 14th, 1854, with a child, three months old, affected with hereditary syphilis. Married seven years, and has had five children before the one brought to me this day; none of these are alive at present, and the most they lived was two months. She went the full time only once; all the other confinements took place at seven months and five months and a half. Husband, thirty-two years of age, went to St. Bartholomew's Hospital before marriage with a bad leg; denies any other affection. Mother had soreness on private parts before the first child was born; made nothing of it. She is perfectly well, robust looking, and is suckling the present patient. The latter recovered with mercury.

In December, 1855, the same woman came again with a second child, eight weeks old, who had presented, since it was a fortnight old, pemphigus about various parts of the body. The child, whose case is mentioned above, and who is now twenty-one months old, accompanied her. It had grown much, but had a rather large head. Could not walk as yet, and had only two teeth. The infant, eight weeks old, also did well. I will just mention, by way of parenthesis, that I have now seen several cases of recovery of syphilitic children, who presented afterwards a great cranial development, and a peculiar rolling

of the eyes. I am about collecting facts touching the question of relationship between hereditary syphilis and hydrocephalus.

Fourth case.—On July 19th, 1856, my friend, Dr. Lichtenberg, of the German Hospital, showed me the little boy of a seafaring man, three months old, with ulcerated muco-cutaneous papules on each side of the anus, the size of sixpence. First child; mother perfectly healthy: says she was never ill in her life. The papules had appeared when the infant was two months old.

Fifth case.—Charles N——, three months old; hereditary syphilis; out-patient of the Royal Free Hospital, Oct. 21st, 1856. Mother aged forty-one; father thirty-six; both said to be well; three children, the two first still-born at seven months. Present patient, third child. He recovered with mercury.

Sixth case.—On Sept. 26th, 1856, Mrs. W——, aged thirty, husband, aged thirty-two, brought to me a little boy, four months old, with marked symptoms of hereditary syphilis. She had been married seven years, and had had three children: a little girl, now in good health, three years and a half old; another, who had died of scarlatina; and the present patient. The husband had had an ulceration, without bubo, four years before. The child recovered under mercurial treatment, and has had relapses since; but the mother never suffered.

Seventh case.—On the 6th of March, 1857, Mrs. E——, wife of a German of the Hebrew faith, came to me with an infant, two months and a half old, who was in a wretched condition in consequence of hereditary syphilitic taint. Mother and father above thirty years of age; the latter bore evident marks of the disease; the former was in good health. First child born dead; second child, a pretty little girl of two years, in excellent condition. The present patient recovered with mercury, and has had no relapse: the mother has remained well.

Eighth case.—Elizabeth B——, five weeks old, was brought to the German Hospital by her mother, on May 9th, 1857, with very distinct symptoms of hereditary syphilis. The mother says there has never been anything the matter with

her; has been married five years. First child still-born at five months; second child is now two years and a half old, was born in excellent health, and about one month after birth had an eruption similar to the one now seen on the present patient. No remedies were used, and the child recovered. The mother has never had any ailment. The sick child she brought was treated by me for a little while with mercury; but I subsequently lost sight of the infant.

Ninth case. — Emma L——, two months old, thin and withered, was brought to the German Hospital, July 29th, 1857. The mother is looking very healthy; twenty-six years of age; first child, delivered with forceps. Father's story rambling and unsatisfactory. Child recovered with mercury.

Tenth case.—Catherine W——, ten weeks old, was brought by her mother to the German Hospital, Nov. 19th, 1857, with well-marked symptoms of syphilis. The mother has another child, three years old, in good health; has been married six years; never had any discharges, or other ailments. Child was brought irregularly; no records as to result of treatment.

Eleventh case.—Henry S——, eighteen months old, was brought to the German Hospital, Dec. 16th, 1857, with unusually severe symptoms of hereditary syphilis. Mother looking very healthy; father thirty-six years of age; has had boils for the last ten months; married seven years; one child, nearly six years old; five miscarriages between this latter child and the present patient; mother is now near her confinement; the miscarriages varied from two to four months; mother always enjoyed good health. Treatment begun by my colleague, Dr. Sutro, and partially continued by myself.

Twelfth case.—Alice W ——, nine months old, was brought to the Royal Free Hospital, April 21st, 1857, suffering from hereditary syphilis. She was quite well until four months old. Father consumptive; no data respecting him; always refused to come; mother quite well. The child was treated for eight months with mercury and tonics; and at last sunk under very unusual tertiary symptoms.

Thirteenth case.—On the 17th of February, 1858, a woman, thirty-two years old, was admitted with her child into the German Hospital, the infant presenting symptoms of hereditary syphilis, with severe purulent ophthalmia. The mother, the left angle of whose mouth was drawn downwards in consequence of a burn, by the formation of a thick band, was married eight months ago; child born at seven months; husband confesses to secondary symptoms. The mother states that she has never had any sores, discharges, or other ailments. I should, however, add, that Dr. Lichtenberg, the resident physician, saw a few excoriations about the vulva. The child recovered with mercury. Albugo on both eyes.

I must apologize for the tediousness unavoidable in the relation of cases, however briefly narrated; but in a question of this kind it is important that facts should speak for themselves. These thirteen cases (or twelve, if the latter be not considered sufficiently conclusive) should be well weighed against the ten in which the mothers undoubtedly suffered; and taken into consideration in any further investigations on the subject, the question in the meanwhile remaining *sub judice*.

And now allow me, Mr. President and Gentlemen, to thank you for the attention you have given to my remarks. I am deeply sensible of the imperfections of these lectures; but I am, nevertheless, conscious of having used my best endeavours to render them worthy of the audience I have had the honour of addressing.

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